

AN ANALYSIS OF THE TAX EFFECTS OF FOREIGN  
INVESTMENTS IN U.S. AGRICULTURAL LAND

BY

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Concerns about the relative positions of U.S. citizens/residents and nonresident aliens resulting from the U.S. income tax treatment of gains and losses from dispositions of investments in U.S. real property led to the passage of the Foreign Investment in Real Property Tax Act of 1980 (FIRPTA). This legislation was designed to alleviate perceived inequities in the income tax treatment of U.S. citizens/residents and nonresident aliens as manifested in the U.S. taxation of gains realized on dispositions of U.S. real property. The FIRPTA rules are codified primarily in Code Section 897 and Treasury Regulations thereunder. Other related tax provisions include Code Sections 1445 (withholding of tax on dispositions of U.S. real property interests) and 6039C (reporting requirements for foreign investors holding interests in U.S. real property).

The purpose of this study is to determine whether FIRPTA increased the horizontal equity between U.S. and foreign investors holding interests in U.S. real property. The presumption is that foreign

investors had an advantage over their U.S. counterparts prior to the enactment of FIRPTA law. After-tax internal rates of return (IRRs) are used as a proxy for horizontal equity. IRR differences are analyzed in order to determine whether claimed inequities existed prior to the enactment of the FIRPTA legislation and whether those inequities were reduced or eliminated by the enactment of FIRPTA.

Using Canada and Saudi Arabia as examples of two extremes in terms of foreign country tax systems and their relationship with the United States, i.e., existence of bilateral tax treaties or not, a computer-based IRR model is used to generate IRRs under various scenarios. U.S. and foreign investments in U.S. agricultural land are used as a basis for valuing nontax variables. United States and the foreign countries' tax systems, as modified by bilateral tax treaties, are used in the computation of applicable income taxes. Both individual direct investments and indirect investments through a U.S. corporation are analyzed.

The findings of this study are mixed. Generally, the post-FIRPTA IRR differences between U.S. and Canadian and Saudi Arabian investors were less than the pre-FIRPTA differences (FIRPTA was marginally effective). There are differences in the results depending upon (1) the assumed classification of rental income earned by the foreign investor, (2) the investment medium used, and (3) the levels of some of the economic variables. However, while the disparity between the IRRs of U.S. and Canadian and Saudi Arabian investors decreased as a result of FIRPTA, the post-FIRPTA IRRs for foreign investors are greater than the IRRs for U.S. investors in the majority of the posited scenarios. Therefore, while FIRPTA did increase the horizontal equity between the

U.S. and the selected foreign investors in several instances, the inequities have not been totally eliminated.



## CHAPTER 1 INTRODUCTION

Foreign investments in the United States date back to pre-colonial days. Probably one of the most well-known acquisitions of U.S. land by a foreign investor was the purchase of Manhattan Island (New York City) by a Dutch firm from the native American Indians. Foreign investments in U.S. real property were also extensive during the nineteenth century.<sup>1</sup> At that time growing concern about increased foreign investments in U.S. land led some states to enact laws designed to regulate and/or restrict foreign investments in U.S. land. The main focus of opponents to the observed flow of foreign investments into the United States related to nontax factors.<sup>2</sup>

Concerns relating specifically to foreign investments in U.S. land, in general, and agricultural land, in particular, were fourfold. First, as absentee landlords, foreign investors would let the land lay idle, holding it only as a speculative investment. Second, foreign investors would not contribute to the development of local communities. Third, foreign participation in U.S. agricultural production would lead to foreign control over domestic production of crucial agricultural products. Fourth, land prices would be bid up to such a high level that many domestic farmers would be driven out of the market.

Some of these same concerns were being expressed during the 1970s when, again, increased foreign investment in U.S. real property became apparent. Of particular concern were rumors of increased foreign

investments in U.S. agricultural land. In addition to previously mentioned concerns, the unequal U.S. tax treatment of capital gains realized from sales and exchanges of real property became a paramount issue. The basic contention was that foreign investors enjoyed a competitive advantage over their U.S. counterparts through their exemption from the capital gains tax. That is, the capital gains tax exemption available to most foreign investors made it possible for them to earn a higher rate of return on their investments. Consequently, foreign investors would be able to bid up the price of U.S. agricultural land and, thereby, force many domestic investors out of the farmland market.<sup>3</sup>

Whether and to what extent foreign persons<sup>4</sup> have (1) contributed significantly to a conversion of productive agricultural lands to nonagricultural uses (specifically to speculative investments), (2) obtained control over the domestic production of crucial agricultural products, and/or (3) brought inflationary pressure on the market for U.S. agricultural land are empirical issues which will not be addressed in this study. However, some of the available data relating to these issues will be cited where appropriate.

The unequal tax treatment of capital gains realized by foreign and domestic investors is the main stimulus for this inquiry. Prior to 1980 certain foreign investors were exempt from U.S. taxation of capital gains realized on sale or exchange transactions through the interaction of U.S. statutory income tax rules and bilateral tax treaty provisions. Legislation enacted in 1980 (discussed later) narrowed the gap between the taxation of foreign and domestic investors by minimizing the opportunities for foreign investors to reduce or avoid their U.S. income

tax liability arising from periodic income earned and capital gains realized on U.S. real property investments. Many informed observers recognize that there are various factors which induce foreign investors to seek investment opportunities outside of their home countries. These factors are discussed immediately below. Following this, the remainder of this chapter is devoted to a discussion of (1) U.S. taxation of foreign persons, (2) the purpose and scope of this study, (3) the research methodology employed, (4) a review of related research, (5) the significance, contributions, and limitations of this study, and (6) chapter summaries.

#### Why Foreign Persons Invest in U.S. Real Estate

Motives for investing in U.S. real estate are numerous and varied depending upon the property's expected use as well as the investor's particular circumstances. Real estate may be acquired primarily for either consumption of its services (e.g., as a personal residence, primary business location, or agricultural production) or for speculation or investment. Motives for investing in real estate common to both foreign and domestic investors include (1) obtaining a hedge against inflation, (2) realizing capital appreciation, (3) obtaining periodic income flows, (4) balancing the investor's investment portfolio, and (5) obtaining tax advantages relative to other forms of investment.<sup>5</sup> Foreign investors may have additional reasons for acquiring U.S. real estate that do not apply to domestic investors. These include (1) the greater safety of the U.S. investment as a result of the stable economic and political climates found in the United States, (2) the greater affordability of U.S. real estate due in part to lower U.S. land prices, (3) the potential for escape from a disadvantageous investment environment in their home

country, and (4) the legal sheltering of income from taxation in their home country.<sup>6</sup> The investment motive that has the most relevance in this study is the enhancement of after-tax returns via the operation of the tax statutes of the United States and the foreign investor's home country and the special tax provisions found in bilateral tax treaties between the United States and the investor's home country.

#### U.S. Taxation of Foreign Persons: An Overview

The U.S. income tax system levies taxes against individuals and entities including U.S. citizen and resident alien individuals, domestic entities (i.e., U.S. corporations, trusts, and estates), nonresident alien individuals and foreign entities. The system can be divided into two categories--domestic taxation and foreign taxation--based upon the location in which the income was earned and the tax status of the person earning the income. From a U.S. perspective the foreign taxation category relates to the taxation of U.S. persons on income earned from locations outside of the United States and non-U.S. persons on income earned from sources outside their home country.

#### Taxation of Foreign Taxpayers

Table 1.1 presents a broad overview of the taxation of U.S. citizens, resident alien individuals, and domestic corporations as compared to nonresident alien individuals and foreign corporations prior to the enactment of the Foreign Investment in Real Property Tax Act of 1980 (FIRPTA). Essentially, the former group is taxed on its worldwide net income at the progressive individual and corporate tax rates, while the latter group is taxed on its U.S. source investment and trade or business income using either a gross or net method. Foreign source income earned by the latter group is generally exempt from U.S. taxation.

TABLE 1.1  
U.S. TAXATION OF U.S. CITIZENS/RESIDENT ALIENS, AND NONRESIDENT ALIENS  
(Pre-FIRPTA)

Status	Jurisdictional Basis of Tax	Income Subject to Tax	Tax Rate	Tax Base
U.S. Citizens	Country of Citizenship	Worldwide Income	Graduated Rates	Net Income
Domestic Corporations	Place of Incorporation	Worldwide Income	Graduated Rates	Net Income
Resident Aliens	Country of Residency	Worldwide Income	Graduated Rates	Net Income
Nonresident Aliens and Foreign Corporations	Source and Nature of Income	U.S. Source Income: (1) Passive income (fixed or deter- minable and payable annually or periodically)	Flat Rate (30% or less)	Gross Income
		(2) Income effec- tively connected with the conduct of a U.S. trade or business	Graduated Rates	Net Income
		(3) Capital gains not effectively connected with the conduct of a U.S. trade or business	Exempt for corpor- ations and for individuals pre- sent in the U.S. for less than 183 days during the tax year	N/A <sup>a</sup>
		Non-U.S. Source Income	Generally exempt <sup>b</sup>	N/A

<sup>a</sup>Not applicable.

<sup>b</sup>Limited exceptions to this exemption can be found for effectively connected trade or business income in <872 prior to its amendment by FIRPTA and subsequent tax law revisions.

The relevant Internal Revenue Code Sections include the following:

1. Sections 861, 862, and 863 are basically definitional rules which specify when and what items of income realized by foreign taxpayers are considered to be from sources within the United States (U.S. source income) or from sources without the United States (foreign source income).
2. Section 864 specifies the circumstances under which activities of nonresident alien individuals and foreign corporations are considered to be "effectively connected with the conduct of a U.S. trade or business."
3. Sections 871, 881 and 882 are the provisions which impose an income tax on nonresident alien individuals and foreign corporations who have income from sources within the United States at either a flat 30 percent rate or at the regular graduated rates which apply to U.S. individuals and corporations. Under these provisions, capital gains are exempt from U.S. taxation unless:
  - (a) the gains are effectively connected with the conduct of a U.S. trade or business,
  - (b) the foreign investor elects to have otherwise passive investment income treated as if it is effectively connected with the conduct of a U.S. trade or business, or
  - (c) in the case of a nonresident alien individual, the individual is present in the United States for 183 days or more during the taxable year.

The tax rates and bases applicable to foreign persons depend upon the categorization of the income in question. Essentially, there are

three classes of income which have differing tax implications: (1) income that is not effectively connected with the conduct of a U.S. trade or business and which is fixed or determinable in amount and annual or periodic in nature (i.e., passive investment income); (2) income that is effectively connected with the conduct of a U.S. trade or business; and (3) exempt income.

### The Capital Gains Debate

Prior to the passage of the Foreign Investment in Real Property Tax Act of 1980,<sup>7</sup> nonresident alien individuals and foreign corporations generally were not subject to taxation of gains realized on the sale or exchange of U.S. real property unless such property was effectively connected with the conduct of a U.S. trade or business. The exemption from taxation of certain capital gains realized by foreign persons stirred much debate beginning in the early 1970s. The initial opposition to the unequal taxation of U.S. persons and foreign persons was focused upon gains and losses realized from sales and exchanges of U.S. agricultural lands. The U.S. Congress, in response to expressed concerns and calls for change, enacted legislation in 1980 (FIRPTA)<sup>8</sup> which narrowed the gap between the tax treatment of U.S. persons and foreign persons on gains and losses realized from sales and exchanges of U.S. real property. Foreign persons became subject to a tax on gains and losses realized on direct and indirect dispositions of investments in U.S. real property. Such gains and losses are now taxed as if they are effectively connected with the conduct of a U.S. trade or business. The legislation is applicable to not only agricultural land but to potentially all U.S. real property interests held by foreign persons.

As previously mentioned, one of the criticisms of the pre-FIRPTA taxation of foreign investments in U.S. property was the unequal treatment of foreign and U.S. investors on gains realized from sales or exchanges of such property. Also, foreign investors not engaged in the conduct of a U.S. trade or business could potentially reduce or eliminate any tax liability on their annual income as well as their net gains from dispositions of real property through the operation of Internal Revenue Code and bilateral tax treaty provisions. FIRPTA was expected to equalize the tax treatment of foreign and U.S. investors on their real property investments and thereby eliminate the alleged competitive advantage enjoyed by foreign investors.

#### Scope and Purpose of Study

Although the scope of FIRPTA encompasses all U.S. real property interests,<sup>9</sup> this study is limited to foreign and domestic investments in U.S. farmlands. Reasons for this limitation are (1) a majority of U.S. agricultural lands owned by foreign investors is held as passive investments<sup>10</sup> and is, therefore, affected by FIRPTA; (2) more reliable data are available in the case of foreign investments in U.S. agricultural lands because of legal annual reporting requirements which are now in place;<sup>11</sup> and (3) the major impetus for the FIRPTA legislation was the concern about increased foreign investments in U.S. agricultural land.

Foreign investors hold interests in U.S. agricultural lands via different forms of ownership. Direct ownership refers to interests held by individuals. Indirect ownership refers to interests held through both domestic and foreign entities (e.g., corporations, partnerships, trusts, and estates). Indirect investments in U.S. real property that are made



through domestic corporations<sup>12</sup> are the indirect ownership form that will be examined for the major portion of this study. U.S. Department of Agriculture data show that the majority of all foreign investments in U.S. real property held are through domestic corporations.<sup>13</sup>

The qualities of efficiency and equity are generally regarded as desirable characteristics of a good tax system. The quality of efficiency relates to administrative and compliance costs incurred in raising tax revenues and the optimal allocation of the economy's resources. Equity, on the other hand, is a concept of fairness and may be viewed from two perspectives: vertical equity and horizontal equity. Vertical equity is based upon the premise that those with higher income have a greater ability to pay taxes and should, therefore, be subject to a higher rate of taxation. Progressive tax rates have been used as a means of operationalizing the concept of vertical equity; however, not everyone agrees that vertical equity is "fair." On the other hand, horizontal equity is not subject to as much debate. Most observers subscribe to the premise that taxpayers in the same position (i.e., equal income, wealth, or consumption) should bear the same tax burden.<sup>14</sup>

While the concept of horizontal equity is widely accepted, it is not always achieved. In addition to the difficulties involved in measuring "sameness" in income, wealth, or consumption, there are instances in which horizontal equity is sacrificed in favor of other economic, political, or social goals. One area of taxation in which political and economic considerations have prevailed is the taxation of foreign persons on their U.S. source income.

Some of the policy objectives which are primarily related to the area of international taxation are (1) to mitigate the effects of

multiple taxation (e.g., through income exclusions, foreign tax credits, and bilateral tax treaties); (2) to aid the U.S. balance of payments problems by encouraging the inflow of foreign monies into the U.S. (e.g., the tax exemption available to foreign individuals for interest earned on certain bank deposits); (3) to minimize undesirable effects of U.S. tax laws on other countries' economic policies; and (4) to maintain equity within the system of taxation.

The equity objective is assumed to apply not only to the taxation of U.S. citizens and resident aliens but to foreign persons as well. The equity issue of interest in this study relates to the taxation of capital gains and losses realized by foreign and U.S. persons from sales and exchanges of U.S. real property in general and agricultural land in particular. The analysis in this study focuses upon the after-tax internal rate of return (IRR) as a proxy for the existence or nonexistence of horizontal equity between foreign and U.S. investors. No attempt will be made to address other concerns such as the impact of foreign investments on agricultural land prices.

### Research Methodology

#### Research Model

In light of the rationale used to enact FIRPTA, this study will attempt to determine whether foreign investors in U.S. agricultural land had a comparative advantage over their U.S. counterparts. Under the assumption that the IRR is an acceptable means by which to evaluate a real property investment,<sup>15</sup> IRR differences will be evaluated in order to determine whether claimed inequities existed prior to the enactment of FIRPTA and whether those inequities were reduced or eliminated by the enactment of FIRPTA.

A series of research questions (discussed below) will be analyzed by comparing IRRs before and after the enactment of FIRPTA. Comparisons are made of IRRs before and after FIRPTA for (1) nonresident alien individuals and U.S. citizen/resident alien individuals investing in U.S. agricultural land indirectly through a U.S. corporation, (2) nonresident alien individuals and U.S. citizen/resident alien individuals investing directly in U.S. agricultural land, and (3) nonresident alien individuals as both direct investors and indirect investors.

Conceptually, the internal rate of return is that rate which equates the present value of all cash inflows with the present value of all cash outflows (including the initial cash investment). The IRR model used is an adaptation of a deterministic model for individual taxpayers that was used by O'Dell in his research.<sup>16</sup> Through an iterative process, the model produces the IRR necessary to equate the initial cash investment to the present value of after-tax cash flows. In other words, the IRR should satisfy the following condition:

$$\text{Cash Investment} = \text{Present Value of } \left[ \begin{array}{l} \text{Annual net after-tax} \\ \text{cash flow over the} \\ \text{life of the investment} \end{array} \right] + \left[ \begin{array}{l} \text{Net after-tax cash} \\ \text{flow from disposition} \\ \text{of the investment.} \end{array} \right]$$

The basic mathematical expression of the model is presented in Chapter 3.

The main emphasis in this study is on the tax effects of FIRPTA on after-tax IRRs. However, the determination of after-tax IRRs necessitates consideration of both tax and nontax factors. The latter are referred to as investment environmental variables and, for purposes of this study, are restricted to presumed passive investments in U.S. agricultural land. The tax variables include income taxes imposed by the United States and the home country of the investor.<sup>17</sup>

Since U.S. agricultural land is the assumed investment medium, values for most of the environmental variables were obtained from publicly available data published by the U.S. Department of Agriculture. Values for the tax variables were obtained from an analysis of applicable U.S. and selected foreign country income tax provisions and bilateral tax treaty provisions. Values for most of the model variables are held constant throughout the analysis in order to isolate the tax effect of interest. However, those environmental variables (e.g., annual rentals) whose values are subject to change over time are varied via the use of growth rates. In addition, since certain values are chosen arbitrarily (e.g., holding period), limited sensitivity analysis is performed.

#### Research Questions

As previously mentioned, one of the justifications offered by FIRPTA's proponents was that the differential tax treatment of gains on sales of U.S. real property which existed in U.S. tax laws for taxing U.S. and foreign investors provided an unfair advantage for foreign investors. The reason for this concern was that, under pre-1980 U.S. tax laws, foreign investors were able to escape U.S. taxation of certain gains realized on sales of U.S. real property. It was claimed, ceteris paribus, that foreign investors could earn a higher return on their investments than their U.S. counterparts. There was particular concern in the case of purchases of U.S. farmlands.

The horizontal equity issue is analyzed via a comparison of IRRs for hypothetical U.S. real property investment situations. In comparing U.S. investors with foreign investors, worldwide taxes paid by both investor groups--taxes paid to the host and home country governments--are included in the model. Whether FIRPTA actually reduces the foreign investor's IRR

depends not only upon the U.S. taxes levied but also upon how the investor is taxed in his home country in terms of applicable tax rates, tax bases, and credits (or deductions) granted for taxes paid to other countries. Foreign tax credits granted by the home country could, in effect, offset any increases in U.S. taxes levied against the foreign investor.

A computer-based analysis is used to construct hypothetical after-tax IRRs for both foreign and U.S. investors. This model is used to investigate the following research questions:

Research Question 1. In the absence of FIRPTA, did nonresident alien individuals have a comparative advantage over U.S. investors (citizens/resident alien individuals) in the case of

- a. direct investments in U.S. agricultural land and
- b. indirect investments in U.S. agricultural land via the ownership of shares of stock in a U.S. corporation holding primarily U.S. agricultural land?

Research Question 2. Did FIRPTA increase horizontal equity (as defined previously) between nonresident alien individuals and U.S. investors (citizens and resident alien individuals) in the case of

- a. direct investments in U.S. agricultural land and
- b. indirect investments in U.S. agricultural land via the ownership of shares of stock in a U.S. corporation holding primarily U.S. agricultural land?

Research Question 3. In the absence of FIRPTA, did nonresident alien individuals have a comparative advantage by holding direct investments in U.S. farmland instead of indirect investments?

Research Question 4. Did FIRPTA affect the comparative IRRs on nonresident alien individuals' investments in U.S. farmland held directly and indirectly?

Research Question 5. Were citizens/residents of a territorial country more adversely affected by FIRPTA than were citizens/residents of a nonterritorial country in the case of investments in U.S. farmland held directly and indirectly?

The foregoing research questions are first analyzed under the assumption that the home country of the foreign investor is a tax neutral country. That is, the home country of the foreign investor levies no income taxes and has not entered into a bilateral tax treaty with the United States. Consequently, for the pre-FIRPTA period, the foreign investor would not incur a U.S. capital gains tax unless (1) he were present in the United States for 183 days or more during the taxable year,<sup>18</sup> (2) his investment were effectively connected with the conduct of a U.S. trade or business,<sup>19</sup> or (3) he made a Code Section 871(d) election to have the investment treated as if it were effectively connected with the conduct of a U.S. trade or business. Assuming that none of these situations applies, the expected effect of FIRPTA is a decrease in the after-tax IRR for both direct and indirect foreign investments in U.S. agricultural land. In other words, the foreign investor from the tax neutral country should find that his

$$IRR_{\text{before}} > IRR_{\text{after}}$$

Therefore, in research question 1, the expected result for both direct and indirect investments in U.S. agricultural land is that

$$IRR_F - IRR_{US} > 0$$

and for research question 2

$$\left[ \begin{array}{c} \text{IRR}_F - \text{IRR}_{US} \\ \text{Under} \\ \text{Pre-FIRPTA} \\ \text{Law} \end{array} \right] - \left[ \begin{array}{c} \text{IRR}_F - \text{IRR}_{US} \\ \text{Under} \\ \text{Post-FIRPTA} \\ \text{Law} \end{array} \right] > 0$$

where  $\text{IRR}_F$  and  $\text{IRR}_{US}$  represent the after-tax internal rates of return to foreign and U.S. investors, respectively.

Using the same assumptions, the expected results for research questions 3 and 4 are that ownership through a U.S. corporation might result in a higher total tax liability and, therefore, a lower internal-rate of return because of the possible double taxation of income. However, several factors (e.g., effective corporate vs. individual tax rates, dividend payout ratios, etc.) determine which investment medium (direct or indirect) yields the lower tax liability. It is highly likely that the tax liabilities will differ depending upon the investment medium used; therefore, it is expected that both prior to and after FIRPTA that

$$\text{IRR}_D - \text{IRR}_{ID} \neq 0$$

where  $\text{IRR}_D$  and  $\text{IRR}_{ID}$  represent the after-tax internal rates of return for nonresident alien individuals making direct and indirect investments, respectively, in U.S. agricultural land.

The results of the analysis of foreign investors from an assumed tax neutral country will be used as a benchmark for the comparison of IRRs for U.S. investors and foreign investors from a specific foreign country. As previously mentioned, the extent to which FIRPTA affected the relative IRRs of foreign investors as compared to U.S. investors will likely depend upon how the foreign investor is taxed in his home country.

#### Applicable Tax Laws

The tax law change of interest in this study is the elimination of the tax exemption for capital gains realized by foreign taxpayers on

dispositions of U.S. real property interests. Values for the model's tax variables will be determined using tax provisions in effect as of 1987 for the selected foreign countries. In the case of the United States, the following tax situations will be used:

1. Tax provisions in effect as of January 1, 1986,
  - a. excluding FIRPTA
  - b. including FIRPTA
2. Tax provisions for the post-TRA of 1986 period,
  - a. excluding FIRPTA
  - b. including FIRPTA

The Tax Reform Act of 1986 (TRA of 1986)<sup>20</sup> contains provisions which have a direct impact upon the after-tax cash flows from investments in U.S. agricultural land. Under Pre-TRA of 1986 income tax provisions, U.S. citizens and resident alien individuals were subject to a maximum effective capital gain tax rate of 20 percent (40 percent taxable portion of gain times a maximum 50 percent tax rate). Domestic corporations were subject to a maximum capital gains tax rate of 28 percent. Nonresident alien individuals were subject to a capital gains tax at the regular individual graduated tax rates or a special minimum tax rate of 20 percent.

Among the TRA of 1986 provisions which affect the tax liability of U.S. and foreign taxpayers investing in U.S. agricultural land after the expiration of all transitional periods are the following:

1. Individual tax rates have been changed from up to 14 brackets ranging from 11 to 50 percent to only two brackets of 15 and 28 percent with an extra 5 percent rate on taxable above



established levels until the 15 percent rate and the personal exemption are phased out.

2. The capital gain exclusion for individuals contained in Code Section 1202 has been eliminated. Therefore, capital gains are taxed at a maximum individual rate of 28 percent.
3. The corporate alternative capital gain rate of 28 percent [Code Section 1201] was eliminated.
4. Corporate tax rates have been changed from 5 brackets ranging from 15 to 46 percent to 3 brackets, 15, 25, and 34 percent with an extra 5 percent for taxable income between \$100,000 and \$335,000.
5. The nonrecognition provisions of Code Sections 336 and 337 which exempted corporations from taxation on any gain or loss on assets distributed or sold or exchanged as part of a complete liquidation have been eliminated.

#### Significance, Contributions, and Limitations of Study

As previously discussed, there were numerous claims of disadvantages faced by U.S. investors who held real property investments partly as a result of the inequities in the tax treatment of U.S. investors as compared to foreign investors on gains realized from dispositions of U.S. real property. During the early 1970s there was speculation that foreign investors were buying up to 50 percent of "all American farmland put on the market" and that they were willing to "pay more for the land than domestic investors, thus pricing the small farmer out of the market."<sup>21</sup> However, available data generally do not support these contentions. For example, researchers in one empirical study found no "support for the hypothesis that foreign investors pay higher prices for land of a

specified quality."<sup>22</sup> Therefore, one might conclude that foreign investors do not have any more impact on farmland prices than any other investor.

Regionally, the foreign investors' impact varies depending upon their concentration in the market. Evidence shows that their concentration differs among the various states and regions of the United States. As shown in Table 1.2, foreign investors currently have holdings in 49 of the 50 states (all except Rhode Island) and Puerto Rico and Guam. Excluding Maine, which has the highest concentration, foreign holdings are concentrated in the West and South which contain over 50 percent of all foreign-held U.S. agricultural land.

Irrespective of whether foreign investors have contributed to higher land prices, the question of tax equity is an important policy consideration. Opponents to the FIRPTA legislation have contended that its capital gains tax has, in fact, placed foreign investors at a disadvantage. That is, foreign investors are now earning lower rates of return than their U.S. counterparts. They argue that "U.S. tax laws frequently violate the principle of treating similarly situated U.S. and foreign investors in a similar manner, and that it is unclear whether FIRPTA produces a more equitable result."<sup>23</sup>

This study is limited to a comparison of U.S. citizen/resident alien individuals and nonresident alien individuals investing in U.S. agricultural land either directly or indirectly through U.S. corporations. Therefore, any results obtained can only be assumed to apply to the narrowly defined investors and investment media. However, as previously mentioned, one of the investment media used represents the one through which the majority of foreign investments in U.S.

TABLE 1.2  
U.S. AGRICULTURAL LANDHOLDINGS OF FOREIGN OWNERS BY STATE,  
DECEMBER 31, 1987

State	Foreign-Owned Agricultural Land	Proportion of All Foreign-Owned Agricultural Land in U.S.	Proportion of Privately Owned Agricultural Land in the State
	----acres-----	---percent---	-----percent-----
ALABAMA	264,675	2.2	0.9
ALASKA	416	NEG	0.1
ARIZONA	272,696	2.2	2.5
ARKANSAS	155,255	1.2	0.5
CALIFORNIA	922,680	7.4	1.9
COLORADO	508,880	4.1	1.4
CONNECTICUT	1,020	NEG	NEG
DELAWARE	5,701	NEG	0.5
FLORIDA	532,917	4.3	2.0
GEORGIA	607,260	4.8	1.8
GUAM	336	NEG	0.4
HAWAII	52,860	0.4	2.7
IDAHO	27,235	0.2	0.2
ILLINOIS	132,576	1.1	0.4
INDIANA	43,634	0.3	0.2
IOWA	32,651	0.3	0.1
KANSAS	67,491	0.5	0.1
KENTUCKY	69,666	0.6	0.3
LOUISIANA	659,268	5.3	2.5
MAINE	1,785,291	14.2	9.5
MARYLAND	50,401	0.4	1.0
MASSACHUSETTS	1,703	NEG	NEG
MICHIGAN	197,956	1.6	0.8
MINNESOTA	241,304	1.9	0.7
MISSISSIPPI	435,388	3.5	1.6
MISSOURI	59,923	0.5	0.1
MONTANA	442,484	3.5	0.8
NEBRASKA	69,619	0.6	0.2
NEVADA	45,507	0.4	0.6
NEW HAMPSHIRE	86,297	0.7	1.8
NEW JERSEY	26,509	0.2	0.9
NEW MEXICO	558,258	4.4	1.6
NEW YORK	351,183	2.8	1.4
NORTH CAROLINA	262,808	2.1	1.0
NORTH DAKOTA	30,043	0.2	0.1
OHIO	156,204	1.2	0.7
OKLAHOMA	29,186	0.2	0.1
OREGON	874,345	7.0	3.4
PENNSYLVANIA	165,614	1.3	0.7
PUERTO RICO	1,448	NEG	NEG
RHODE ISLAND	0	0	0

TABLE 1.2 (Cont.)

State	Foreign-Owned Agricultural Land	Proportion of All Foreign-Owned Agricultural Land in U.S.	Proportion of Privately Owned Agricultural Land in the State
	---acres---	---percent---	-----percent-----
SOUTH CAROLINA	211,693	1.7	1.3
SOUTH DAKOTA	43,647	0.3	0.1
TENNESSEE	73,924	0.6	0.3
TEXAS	1,029,059	8.2	0.7
UTAH	67,310	0.5	0.6
VERMONT	111,933	0.9	2.1
VIRGINIA	119,584	1.0	0.6
WASHINGTON	442,994	3.5	1.9
WEST VIRGINIA	91,996	0.7	0.7
WISCONSIN	19,708	0.2	0.1
WYOMING	92,336	0.7	0.4
TOTAL	12,534,972	100.0	1.0*

NEG = NEGLIGIBLE

\*Percent of total U.S. privately owned agricultural land.

Source: U.S. Department of Agriculture, Economic Research Service,  
Foreign Ownership of U.S. Agricultural Land Through December 31, 1987  
 (Washington, D.C.: U.S. Government Printing Office), 1987.

agricultural land are made.<sup>24</sup> Caution is exercised in the interpretation of the results since the data collection process is unobservable. Any biases or measurement errors in the data collection process can not be controlled because most of the data used in the analysis were collected from secondary sources.

No conclusions can be drawn as to the effects of FIRPTA on foreign investors, in general, since only two arbitrarily chosen countries are used in the study.

### Related Research

A review of the literature revealed three categories of literature relating to FIRPTA and/or its impact: (1) articles which examine the legal aspects of the FIRPTA rules and changes thereto,<sup>25</sup> (2) articles which infer the impact of foreign investments in agricultural lands based upon a cursory analysis of available data, and (3) analyses of the impact of FIRPTA based upon broad principles of tax neutrality or equity.

The Economic Research Service of the U.S. Department of Agriculture (USDA), under the provisions of the Agricultural Foreign Investment Disclosure Act of 1978,<sup>26</sup> is required to issue annual reports to Congress on foreign ownership of U.S. agricultural lands. In addition to the data required, the USDA must analyze the impact of foreign ownership of U.S. agricultural lands. Its typical conclusion has been that, in general, "the quantity of foreign-owned U.S. agricultural land remains so small that it is unlikely to have either a positive or negative overall impact on agriculture. However, in areas of heaviest concentration, some communities could be affected."<sup>27</sup>

The Department of Treasury, in a report to Congress, presented an analysis of a hypothetical investment in U.S. agricultural land by a

foreign and a U.S. investor.<sup>28</sup> The overall conclusion was that the foreign investor bore a "lighter" tax burden than the U.S. investor assuming that the former was exempt from any capital gains tax (pre-FIRPTA) in the United States but that, with the imposition of a capital gains tax, the foreign investor, under the assumed conditions, would bear a heavier tax burden than the U.S. investor. Readers were cautioned about the lack of generalizability of the results. In addition, the Department of Treasury's analysis failed to take into account taxes which may have to be paid to the foreign investor's home country.

A search of the dissertation abstracts revealed two dissertations directly related to this study. A study by O'Dell (cited earlier) was conducted during the time period that the U.S. Congress was deliberating proposals for taxing foreign investors on gains realized from dispositions of U.S. property. His study involved a comparison of IRRs generated under tax environments existing under pre-1980 conditions and several proposals for reform that were before Congress. As previously mentioned, O'Dell employed a computer-based internal rate of return model to compare rates of returns for nonresident alien individuals and U.S. citizens or resident aliens who invested directly in U.S. agricultural land. Although his results were mixed, he concluded that the tax proposal which seemed to accomplish the objective of increasing the equity of tax treatment of foreign and U.S. investors was the one whose provisions most closely approximate the provisions currently contained in FIRPTA.<sup>29</sup> One criticism of O'Dell's methodology is that in some instances support for values assigned to variables was lacking or inadequate. For example, little or no support was given for the methodology used to compute growth rates for land prices, gross income,

and operating expenses. His results might have been strengthened if more sensitivity analysis of the results to growth rates and alternative variable values had been conducted and reported. This is especially important in the case of growth trends for land prices since, in many instances, the major portion of the return may relate to capital appreciation.<sup>30</sup> O'Dell's analysis was restricted to direct investments in U.S. agricultural lands by nonresident alien individuals which represents only a small portion of such investments (less than 10 percent in most years since 1978). Patterns of disparities in IRRs may very well differ for other forms of foreign ownership of U.S. agricultural land. Results of O'Dell's analysis also have appeared in one published article.<sup>31</sup>

In addition to the degree of equity embodied in tax provisions, one may be interested in the extent to which tax provisions encourage, discourage, or have no effect on the flow of investment funds between national boundaries. Verbist<sup>32</sup> employed a static after-tax cash flow model to analyze the impact that U.S. and Belgian tax laws had on choices of Belgian real estate investors. His analysis was based on the principle of tax neutrality--that tax laws should have no effect upon taxpayers' investment decisions as to the location of their investment. In analyzing the effect of FIRPTA on after-tax cash flows (expressed as a percentage of before-tax cash flows), Verbist concluded that FIRPTA, through its effect upon after-tax capital gain cash flows, should induce Belgians to invest in Belgian real estate rather than U.S. real estate. This was considered to be a reversal from incentives under the pre-FIRPTA U.S. tax provisions.

Tax neutrality between nations is an important policy consideration. Verbist's analysis, however, fails to consider the time value of money. Informed observers generally agree that the types of investment decisions that were analyzed by Verbist are generally not made in a static environment.

### Chapter Summaries

This study consists of six chapters. Chapter 2 contains an indepth discussion of U.S. tax provisions affecting domestic and foreign taxpayers with special emphasis on real estate investments.

The research methodology is presented in Chapter 3. Detailed descriptions of the model used, the model variables and their values and the data sources are presented. This is followed by a discussion of the model application in Chapter 4.

Chapter 5 presents an analysis of the results obtained from applying the IRR model to simulate investments in U.S. farmlands. The results are analyzed by answering the research questions posed in Chapter 1.

Summaries and conclusions are presented in Chapter 6. In addition, recommendations for future research are made in light of the findings and the limitations of this study.



## NOTES

<sup>1</sup>U.S., Congress, Senate, Committee on Agriculture, Nutrition, and Forestry, Foreign Investment in United States Agricultural Land (Washington, D.C.: U.S. Government Printing Office, 1979), p. 4.

<sup>2</sup>Ibid., pp. 4-5.

<sup>3</sup>See, for example, Stephen J. Brannen, "Foreign Investment in United States Farmland--Is There a Problem?" in U.S., Congress, Senate, Committee on Agriculture, Nutrition, and Forestry, Foreign Investment in United States Agricultural Land (Washington, D.C.: U.S. Government Printing Office, 1979), p. 53.

<sup>4</sup>As used throughout this study, "foreign persons" refers to individuals other than U.S. citizens and resident aliens of the United States and entities other than those formed or organized under the laws of the United States or any political subdivisions thereof.

<sup>5</sup>John Timmons, "Foreign Investments in U.S. Real Estate: An Overview," in Foreign Investment in U.S. Real Estate, U.S. Department of Agriculture, Economic Research Service (Washington, D.C.: U.S. Government Printing Office, 1976), pp. 5-6.

<sup>6</sup>Ibid., p. 6.

<sup>7</sup>Omnibus Reconciliation Act of 1980, P.L. 96-499, 96th Cong., 2nd Sess., December 5, 1980, Sec. Nos. 1121-1125.

<sup>8</sup>The 1980 legislation has been amended several times subsequent to its enactment. Legislation enacted in 1981 [Economic Recovery Act of 1981 (P.L. 97-34)]; 1982 [Tax Equity and Fiscal Responsibility Act of 1982 (P.L. 97-248)]; 1984 [Tax Reform Act of 1984 (P.L. 98-369)]; and 1986 [The Tax Reform Act of 1986 (P.L. 99-514)] amended various technical provisions of FIRPTA but had no effect upon its primary objective--taxation of gains realized by foreign persons on U.S. real property interests.

<sup>9</sup>As defined under Code Sec. 897(c) and the Treasury Regulations thereunder, U.S. real property interests include direct interests in real property located in the United States or the Virgin Islands as well as interests in any domestic corporation if the majority of its assets consist of U.S. real property. U.S. real property interests do not include interests in such property held solely as a creditor. Also exempted are interests of 5 percent or less in a domestic corporation whose stock is regularly traded on an "established securities market."

<sup>10</sup>This is inferred from data contained in U.S. Department of Treasury, Internal Revenue Service, Statistics of Income: Compendium of International Income and Taxes, 1979-1983 (Washington, D.C.: U.S. Government Printing Office, 1985), p. 357.

<sup>11</sup>The Agricultural Foreign Investment Disclosure Act of 1978 (AFIDA), P.L. 95-460, 95th Cong., 2d Sess., October 14, 1978, requires all foreign persons to report (1) all U.S. agricultural land investments held as of February 1, 1979; (2) all dispositions and acquisitions of U.S. agricultural land on or after February 2, 1979, within 90 days of the transfer; and (3) any changes in one's status to or from the "foreign person" classification if such person holds agricultural land. AFIDA specifies in detail the information to be supplied by the foreign person. The required information includes (1) the legal name and address of the foreign person; (2) the citizenship, if an individual, or nature of the legal entity, including the country of creation and principal place of business; (3) the type of interest held; (4) the legal description of the property; (5) the number of acres, purchase price or other consideration given; (6) the intended use; (7) how the interest was transferred--cash, credit, etc.; (8) the relationship of the foreign owner to the operator of the farmland; (9) the type of rental agreement if any; and (10) the date the interest in the land was transferred.

<sup>12</sup>The term "domestic corporation" has reference to corporations created or organized in the United States or under the law of the U.S. or any state as per Code Sec. 7701(a)(4).

<sup>13</sup>U.S. corporations owned 5 percent or more by foreign interests held 56, 62, and 63 percent of all foreign interests in U.S. agricultural lands for the years 1985, 1984, and 1983, respectively. [U.S. Department of Agriculture, Economic Research Service, Foreign Ownership of U.S. Agricultural Land Through December 31, 1985 (Washington, D.C.: U.S. Government Printing Office, 1985), p. 29.] For years prior to 1984, U.S. corporations which were 5 percent or more foreign owned were regarded as "foreign persons" for purposes of reporting U.S. agricultural land holdings if the requisite amount of agricultural land was being held. The threshold was changed to 10 percent if held by a single individual or a group of foreign persons acting in concert and to 50 percent if held by a group of foreign persons not acting in concert.

<sup>14</sup>See, for example, Richard Musgrave, Fiscal Systems (New Haven, Ct.: Yale University Press, 1969), p. 244.

<sup>15</sup>See, for example, Kenneth M. Lusht, "Measuring Rate of Return: Two Rules of Thumb v. The Internal Rate," The Appraisal Journal (April, 1978), pp. 245-256.

<sup>16</sup>Michael A. O'Dell, "An Examination of the Tax Aspect of Foreign Investment in U.S. Farmlands" (Ph.D. dissertation, University of Texas at Austin, 1980), pp. 64-65.

<sup>17</sup>The countries whose income tax systems are used in this study are Canada and Saudi Arabia.

<sup>18</sup>I.R.C. Sec. 871(a)(2).

<sup>19</sup>Treas. Reg. Sec. 1.871-8(b)(2)(ii).

<sup>20</sup>Tax Reform Act of 1986, P.L. No. 99-514, 99th Congress, 2d Sess., October 22, 1986.

<sup>21</sup>Supra note 1, p. 3.

<sup>22</sup>James Duffield, Michael Boehlje, and Roy Hickman, "Impacts of Foreign and Absentee Investment in U.S. Farmland on U.S. Farms and Rural Communities," CARD Report 114 (Ames, Iowa: Iowa State University, 1983).

<sup>23</sup>U.S. Congress, Senate, Committee on Finance, Hearings on Repeal of Foreign Investment in Real Property Tax Act (S. 1915), Hearings before the U.S. Senate, subcommittee on Energy and Agricultural Taxation on Senate No. 1915, 98th Cong., 1st Sess., June, 1984.

<sup>24</sup>Supra note 13.

<sup>25</sup>See, for example, Fred Feingold and Peter Glicklich, "An Analysis of Temporary Regulations Under FIRPTA: Part I," The Journal of Taxation (October, 1988), pp. 262-268; Michael Hirschfeld, "Withholding Tax on Dispositions of U.S. Realty by Foreigners," Taxes (October, 1984), pp. 667-678 and Leonard R. Olson, Jr., "Analysis of Investment in Real Property Tax Act of 1980," International Tax Journal (April, 1980), pp. 262-291; Ernest R. Larkins and Sheretta H. Jones, "Foreign Investments in U.S. Real Estate," The Tax Adviser (August, 1987), pp. 570-587.

<sup>26</sup>Supra note 11.

<sup>27</sup>U.S. Department of Agriculture, Economic Research Service, Supra note 13, p. 50.

<sup>28</sup>This report was in response to Congress' 1978 request that the Department of Treasury conduct a study and analysis of the tax treatment of income and gains resulting from investments in U.S. farmland by foreign investors: U.S. Department of Treasury, Taxation of Foreign Investment in U.S. Real Estate (Washington, D.C.: U.S. Government Printing Office, 1979).

<sup>29</sup>Supra note 16, p. 161.

<sup>30</sup>U.S. Department of Agriculture, Economic Research Service, Returns to Cash Rental Farmland and Stocks: A Social Perspective by Karl Gertel (Washington, D.C.: U.S. Government Printing Office, September, 1982), p. 1.

<sup>31</sup>Michael A. O'Dell, "Foreign and Domestic Tax Consequences of International Real Investment," International Tax Journal (December, 1980), pp. 99-108.

<sup>32</sup>Ludovic C. Verbist, "The Effect of American and Belgian Tax Laws on Belgian Real Estate Investors" (Ph.D. dissertation, Indiana University, 1981).

CHAPTER 2  
U.S. TAXATION OF REAL PROPERTY  
INVESTMENTS AND DISPOSITIONS

Introduction

Prior to the effective date of the Foreign Investment in Real Property Tax Act of 1980 (FIRPTA), foreign investors in U.S. real property enjoyed an advantage over U.S. investors in terms of U.S. tax treatment of capital gains realized on dispositions of such property. Essentially, any capital gains and losses realized by foreign investors on dispositions of U.S. real property were generally exempt from U.S. taxation. On the other hand, any such gains or losses realized by U.S. investors were subject to U.S. taxation. The FIRPTA legislation eliminated the exemption for foreign investors.

The primary emphasis in this study is on the differential effects of U.S. taxation of income earned by U.S. citizen/resident alien individuals and nonresident alien individuals on investments in U.S. real property both prior and subsequent to the enactment of FIRPTA. The effects are analyzed using investments in U.S. agricultural land as a basis for generating values for the investment environmental variables assuming alternatively that interests are held directly and indirectly.<sup>1</sup> The valuation of the tax variables is based upon U.S. income tax provisions and income tax provisions of selected foreign countries as modified by bilateral income tax treaties, if any. The analysis involves a

comparison of the effects of FIRPTA under both pre- and post-Tax Reform Act of 1986 (TRA of 1986) conditions.

Most of this chapter is devoted to a discussion of the taxation of foreign investments in U.S. real property. Basic U.S. income tax provisions relating to the taxation of income earned by U.S. citizen/resident alien individuals, domestic corporations, and foreign corporations on their interests in and dispositions of U.S. real property are discussed in summary form in section one. This is followed by an indepth discussion of U.S. taxation of income earned by nonresident alien individuals on their investments in U.S. real property in section two. Section three contains a discussion of U.S. taxation of foreign investments in U.S. real property both prior to and after the enactment of the FIRPTA legislation. The primary focus of the discussion is on income tax provisions in effect after the enactment of the TRA of 1986. However, since the analysis involves a comparison of the effects of FIRPTA under both pre- and post-TRA of 1986 conditions, references are made to applicable income tax provisions in effect prior to the effective date of the TRA of 1986.

#### U.S. Taxation of U.S. Citizen/Resident Alien Individuals and Corporations

United States citizens, resident alien individuals, and domestic corporations have been taxed on property transactions (including those involving capital assets) since the enactment of the Revenue Act of 1913.<sup>2</sup> Internal Revenue Code Sections 1 and 11 impose an income tax on individuals and corporations, respectively.

#### U.S. Citizen/Resident Alien Individuals

U.S. citizen/resident alien individuals are taxed on their worldwide income at rates of 15 percent and 28 percent with a phaseout of the 15

percent rate for income in excess of a specified amount dependent upon a taxpayer's filing status.<sup>3</sup> The tax rates are applied to gross income less allowable deductions for and from adjusted gross income. Included among the allowable deductions are personal and dependency deductions,<sup>4</sup> a standard deduction amount which differs depending upon one's filing status,<sup>5</sup> certain personal expenditures, and investment related and trade or business expenses. The total amount of net capital gains is taxed at regular rates.<sup>6</sup> Net capital losses are deductible from other taxable income up to a maximum of \$3,000 (\$1,500 in the case of a married person filing a separate return) and any remaining loss may be carried over to future taxable years.<sup>7</sup>

In the case of an investment in U.S. real property, any income earned in excess of investment related expenses is included in gross income and taxed at regular rates. The extent to which investment related expenses may be deducted when such expenses exceed total investment income depends upon whether or not the investment is held as a passive activity. Under current income tax law, the amount of investment related expenses which may be deducted in the case of a passive activity is limited to the amount of the related gross income.<sup>8</sup> In effect any losses from a passive activity may only be offset against income from other passive activities. The amount of any disallowed passive activity loss may be carried forward indefinitely and treated as a passive activity loss in the year(s) to which it is carried.<sup>9</sup>

Any rental activity is classified as a passive activity and, therefore, is subject to the passive loss rules. However, in the case of a natural person, up to \$25,000 of passive activity losses may be offset against income from other sources in each taxable year.<sup>10</sup> Since the

amount of losses generated under the assumptions made in this study are less than \$25,000, the passive loss rules are ignored in the application of the model.

Individual taxpayers are subject to an alternative minimum tax (AMT) under Code Section 55. The AMT is equal to 21 percent of an individual's alternative minimum taxable income (AMTI). The AMTI is determined based upon taxable income after certain adjustments (e.g., certain nondeductible losses and excess of regular itemized deductions over AMT itemized deductions) and tax preference items (e.g., excess of accelerated depreciation over straight-line depreciation).<sup>11</sup> Because of an exemption amount (\$40,000, \$30,000 and \$20,000 for joint returns or surviving spouse, single individuals, and married filing separately, respectively), few individuals are subject to the AMT. It is assumed that the subject individual taxpayers do not elect to itemize deductions. Also, depreciation is assumed to be immaterial. As a result, the AMT rules are not expected to have a material effect upon the outcomes in this study and are, therefore, ignored.

#### Domestic Corporations

In many respects the income tax provisions relating to corporations are similar to those relating to individuals. As is the case for an individual, a corporation's gross income includes income from all sources unless specifically excluded by statute.<sup>12</sup> Corporations are allowed various deductions from gross income including ordinary and necessary trade or business expenses.<sup>13</sup> The resulting taxable income is subject to the following tax rates:

15% of taxable income up to \$50,000;

25% of taxable income greater than \$50,000 but less than \$75,000; and

34% of taxable income in excess of \$75,000.

In addition, for taxable income in excess of \$100,000, an additional tax equal to the lesser of 5 percent of the excess or \$11,750 is assessed. This causes corporations with income in excess of \$335,000 to pay a flat tax of 34 percent.<sup>14</sup> In the case of net capital gains the maximum tax rate is effectively 34 percent to 39 percent depending upon the level of other taxable income. Capital losses are only deductible to the extent that there are capital gains. Any disallowed net capital losses may be carried back three years and forward five years as a short-term capital loss and used as an offset against capital gains in those years.<sup>15</sup>

Corporations are subject to the alternative minimum tax (AMT) which is equal to 20 percent of the corporation's alternative minimum taxable income (AMTI) minus an exemption amount.<sup>16</sup> AMTI is equal to taxable income plus or minus certain adjustments and plus tax preference items. Included among the tax preference items are the excess of accelerated depreciation over straight-line depreciation on certain items. The corporation pays the greater of its regular tax or the AMT. Since depreciation is assumed to be very immaterial in the assumed investments, the AMT is ignored in the application of the model in this study.

#### Foreign Corporations

A foreign corporation is one of the media through which nonresident alien individuals may channel their investments in U.S. real property. To the extent that the foreign corporation is engaged in the conduct of a U.S. trade or business, the U.S. tax rules applicable to a domestic corporation are also applicable to a foreign corporation. However, the



foreign corporation is taxed only on its U.S. source income plus any foreign source income that is effectively connected with the conduct of a U.S. trade or business.<sup>17</sup> U.S. source income not effectively connected with the conduct of a U.S. trade or business is taxed at 30 percent (or lower treaty rate) of the gross income amount.<sup>18</sup> However, the foreign corporation may elect to have any real property income taxed as if it is effectively connected with the conduct of a U.S. trade or business.<sup>19</sup>

The taxation of gains or losses realized on dispositions of interests in U.S. real property falls under the provisions of Code Section 897. Such gains and losses are, therefore, taxable as if effectively connected with the conduct of a U.S. trade or business.

#### U.S. Taxation of Nonresident Alien Individuals

##### Legislative Background

The Foreign Investors Tax Act of 1966 (FITA) serves as the foundation for the current statutory provisions relating to the taxation of foreign taxpayers. Prior to FITA the rates at which the U.S. source income of foreign taxpayers were taxed depended upon the level of income and whether the foreign taxpayer conducted a U.S. trade or business.<sup>19</sup> In the latter case, all U.S. source income was taxed as U.S. trade or business income at the regular income tax rates under the so-called "Force-of-Attraction" rule.<sup>20</sup>

Under post-1966 statutory treatment, the income taxation of foreign taxpayers is based, in part, upon the classification of the U.S. source income. U.S. source income earned by foreign taxpayers is divided into three categories as follows:

1. Passive income not connected with the conduct of a U.S. trade or business and income which is fixed or determinable in amount and annual or periodic in nature<sup>21</sup> (Class I income);
2. Income effectively connected, or treated as effectively connected, with the conduct of a U.S. trade or business (Class II income); and
3. Exempt income.

Prior to 1980, capital gains not effectively connected with the conduct of a U.S. trade or business were exempt from U.S. taxation under certain circumstances. Trade or business related capital gains were taxed as Class II income.

Although the tax rates and tax bases depend upon the classification of the foreign taxpayer's U.S. source income, they may be modified by bilateral tax treaties between the U.S. and other countries. That is, through the operation of bilateral tax treaty provisions, the applicable tax rates may be reduced or otherwise taxable income may become tax exempt.

The foregoing is a general discussion of the taxation of foreign taxpayers. Presented in the sections which follow is a more in-depth discussion of the taxation of the income derived by a nonresident alien individual from investments in U.S. real property. A variety of factors determine the extent to which nonresident alien individuals are subject to U.S. taxation on their U.S. and/or foreign source income. Included among these factors are: (1) their residency status, (2) the nature or character of their income, (3) the existence of bilateral tax treaties, and (4) the tax entity which earns the income. Each of these factors is discussed below.

### Residency Status

The Internal Revenue Code defines a nonresident alien individual in a negative sense--one who is neither a U.S. citizen nor meets the residency requirements.<sup>22</sup> The primary determinants of U.S. residency status are lawful admission for permanent residence and the "substantial presence" test.<sup>23</sup>

### Income Tax

Once it is determined that an alien individual is not a U.S. resident for U.S. income tax purposes, one must also determine whether the alien individual was engaged in the active conduct of a U.S. trade or business at any time during the taxable year. If the nonresident alien individual earned any U.S. source income during the taxable year, such income must be subclassified as either Class I income, Class II income (only if a U.S. trade or business was conducted), or exempt income.

Internal Revenue Code Section 861 identifies items of income which are considered as sourced from within the United States. Includible items of gross income are certain interest from United States obligors, dividends received from domestic corporations and certain foreign corporations that conduct a U.S. trade or business, rental income from property located in the United States and gains from the disposition of United States real property. Whether the includible items of income are Class I or Class II income depends upon whether the items are effectively connected with the active conduct of a U.S. trade or business. An exception applies in the case of gains or losses on sales or exchanges of U.S. real property interests. Such gains or losses are taxed as if effectively connected with the conduct of a U.S. trade or business regardless of whether the real estate activities are in fact a U.S. trade

or business or deemed to be a U.S. trade or business following the making of a Section 871(d) election.

Class I Income. This class of income includes U.S. source income which is fixed or determinable in amount and periodic or annual in nature and not effectively connected with the conduct of a U.S. trade or business.<sup>24</sup> Items of income typically identified as Class I income include interest, dividends, rents, salaries and other compensation for personal services, annuities, and capital gains of nonresident alien individuals who are present in the United States for 183 days or more during the taxable year.<sup>25</sup> Capital gains (excluding those on sales or exchanges of U.S. real property) of nonresident alien individuals who are in the United States for less than 183 days are exempt from U.S. taxation unless effectively connected with the conduct of a U.S. trade or business. Other income forms are also exempt if they are otherwise exempted by statute (e.g., state and local bond interest income), or are classified as foreign source income by Code Section 861.

Class I income items are taxed at a flat 30 percent rate (unless the rate is reduced by a tax treaty). The tax is levied on the gross income amount.<sup>26</sup> No deductions are allowed against the Class I income.<sup>27</sup> The income tax levied on the Class I income items is collected primarily through a withholding system. All payors (e.g., lessees, employers, and mortgagors of real property) are required to withhold 30 percent (or a lesser amount determined under a tax treaty) of the gross income due the nonresident alien individual.<sup>28</sup>

The withholding system is not a substitute for the filing of annual income tax returns. Nonresident alien individuals are required, under the provisions of Code Sections 6012(a) and (c), to file an annual income

tax return unless the amount of taxes withheld at the source satisfies their income tax liability.

Foreign persons who acquire U.S. agricultural land have a number of options available to them regarding the use of the land.<sup>29</sup> Like a domestic owner, they may choose to occupy the land and farm it themselves. Alternatively, they can hire U.S. persons to operate the farm, rent the land to U.S. farmers, or hold the land idle as a speculative investment. Evidence suggests that foreign owners most often hire U.S. residents as managers or lease the farmland to U.S. farmers.<sup>30</sup>

The decision that is made with respect to operating the farmland or holding it as an investment has a number of tax implications. The annual or periodic income, if any, will be subject to taxation as either Class I (passive) income or Class II income (effectively connected with the conduct of a U.S. trade or business). If the foreign person acts as an owner-operator, the income from farming operations is taxable on a net basis at the regular income tax rates under Code Section 871(b). On the other hand, the annual or periodic income from farmland held as a passive investment is taxable under the provisions of Code Section 871(a) as income not effectively connected with the conduct of a U.S. trade or business and, therefore, subject to a 30 percent tax on the gross amount earned.

In the event that the periodic or annual income from a U.S. real property interest is not effectively connected with the conduct of a U.S. trade or business, the foreign person may elect to have it treated as if connected under the provisions of Code Section 871(d) and most U.S. income tax treaties. The Code Section 871(d) election permits the foreign taxpayer to be taxed on a net basis as to any income from

investments in U.S. real property. The election, once made, applies to all income from U.S. real property interests of the foreign investor, including any gains realized from sales or exchanges. The election, once made, is irrevocable without the consent of the Secretary.<sup>31</sup>

Many U.S. tax treaties provided for the net basis election but also provided for an annual election. Since in the case of conflict between the Code and treaty provisions, the treaty takes precedence. Prior to the enactment of the FIRPTA legislation, foreign investors were able to take advantage of the net basis election for annual or periodic income that was earned and escape taxation for gains accruing from sales or exchanges through the interaction of Code and treaty provisions by revoking the election for the year of sale.

Class II Income. The operation of a U.S. trade or business by a nonresident alien individual produces Class II income. Factors considered in determining whether the income earned is effectively connected with the conduct of a U.S. trade or business include whether (1) "the income, gain, or loss is derived from assets used in or held for use in the conduct of such trade or business" (the asset use test) and (2) "the activities of such trade or business were a material factor in the realization of the income, gain, or loss" (the activities test).<sup>32</sup> Operating profits, passive investment income, and capital gains are taxed as Class II income under Code Section 871 or 881 if they are effectively connected with the conduct of a U.S. trade or business and are considered to be U.S. source income. Limited amounts of foreign source income that is effectively connected with the conduct of a U.S. trade or business is also taxed as Class II income. U.S. source, passive investment income

not connected with the conduct of a U.S. trade or business is taxed as Class I income.

Class II income earned by a nonresident alien individual is taxed in essentially the same manner as income earned by U.S. citizen/resident individuals. The similarities include: (1) the same progressive tax rates are applicable, (2) tax bases are equal to gross income less allowable deductions, (3) the alternative minimum tax is applicable, (4) the prior law's capital gain deduction (old Code Section 1202(a)) was applicable, and (5) the capital loss carryover provisions of Code Section 1212 are applicable. The withholding requirements of Code Section 1441(a) do not apply to Class II income. Instead, the nonresident alien individual must make estimated tax payments in the same manner as a U.S. citizen or resident. The income tax provisions do contain some differences in the taxation of nonresident alien individuals as compared to U.S. citizen/resident individuals with respect to Class II income. Some of these are outlined below.

Filing Status. A married nonresident alien individual must file using the "married filing separately" tax status except when the nonresident alien is married to a U.S. citizen or resident alien and a special election is made. The nonresident alien who is married to a U.S. citizen or resident alien may file a joint return with his spouse provided the spouse also makes the election.<sup>33</sup> This election results in U.S. taxation of the worldwide income of the electing parties. Further, the election, once made, remains in effect for all subsequent years unless terminated by either spouse via revocation, death, or legal separation. The election may also be revoked by the Secretary of the Treasury if it is determined that either spouse has failed to (1) keep

the required books and records, (2) grant the Secretary access to such books and records, or (3) supply any other information "as may be reasonably necessary to ascertain the amount of liability for taxes" due from either spouse for the taxable year.<sup>34</sup>

Other Differences. Certain income tax provisions either do not apply to nonresident alien individuals or are more restrictive for these individuals than for U.S. citizens and residents. Examples of this differential treatment include:

1. Nonresident alien individuals are only allowed one personal exemption.<sup>35</sup>
2. The income averaging provision of old Code Sections 1301-1303 did not apply to nonresident alien individuals.<sup>36</sup>
3. The standard deduction amount (zero-bracket amount of prior law) is not available to nonresident alien individual.<sup>37</sup>
4. Nonresident alien individuals are allowed deductions from gross income only to the extent they are connected with the production of U.S. trade or business income.<sup>38</sup>
5. Nonresident alien individuals must itemize their deductions from adjusted gross income.

In the case of the disallowance of the zero bracket amount under prior law, the nonresident alien individual must add back the zero bracket amount to his taxable income before using the tax tables since the tax table taxable income amounts are net of the applicable zero bracket amounts. Tax tables under current law contain taxable income amounts before the applicable standard deduction amounts and, therefore, the addback adjustment is unnecessary.



### Estate Tax

The U.S. estate tax provisions also apply to nonresident alien individuals. Nonresident alien individuals are subject to the estate tax only on their gross estate that is situated in the United States. Their gross estate includes any U.S. real property owned directly as well as the stock of domestic corporations. The taxable estates of nonresident alien individuals are subject to the following estate tax rates:<sup>39</sup>

- 6% on the first \$100,000
- 12% on the next \$400,000
- 18% on the next \$500,000
- 24% on the next \$1,000,000 and
- 30% on amounts in excess of \$2,000,000

The taxable estates of nonresident alien individuals and U.S. citizens and residents are determined in basically the same manner. Although nonresident alien individuals are entitled to unified credits for estate tax purposes that are similar to those granted U.S. citizens and residents, their unified credit is limited to only \$3,600 instead of the \$192,800 permitted U.S. citizens and residents for 1987 and later years.<sup>40</sup>

Although estate tax consequences may be an important consideration in the nonresident alien individual's deliberations as to whether, how, and when to invest in U.S. real property, the estate tax implications will not be considered in this analysis.

### Taxation of Foreign Investments in U.S. Real Property

Real property investments typically generate two sources of income or loss: (1) annual or periodic income (e.g., rental income) or loss and (2) gains or losses from dispositions. United States taxation of the

gains and losses from foreign investments in U.S. real property has been the subject of much controversy during recent years. Prior to 1980, capital gains realized on dispositions of nontrade or business assets were effectively exempt from taxation except in the case of a nonresident alien who was in the United States for 183 or more days during a taxable year or who made an election to have the real estate income taxed as trade or business income. A discussion of U.S. taxation of the annual or periodic income and gains or losses from the disposition of foreign investments in U.S. real property considering both statutory law and bilateral tax treaty provisions follows.

#### Pre-FIRPTA Rules

The provisions of FIRPTA relate solely to the taxation of any gains or losses from dispositions of foreign investments in U.S. real property that are not otherwise effectively connected with the conduct of a U.S. trade or business. The taxation of annual or periodic income from investments in U.S. real property is not affected by the FIRPTA legislation. Therefore, the discussion in this section is limited to the taxation of gains or losses from dispositions of U.S. real property.

The sale or exchange of U.S. real property held as an investment or for the production of income results in the realization of a capital gain or loss. Prior to the enactment of FIRPTA in 1980 foreign investors in U.S. real property were exempt from taxation on any realized gains provided (1) such property was not effectively connected with the conduct of a U.S. trade or business, (2) a Section 871(d) election was not in effect for the nonresident alien individual, or (3) the nonresident alien individual was not present in the United States for 183 days or more during the taxable year. This exclusion from gross income was based upon

the fact that such gains or losses are not considered to be fixed or determinable Class I income.<sup>41</sup>

If a nonresident alien individual were present in the United States for 183 days or more during the taxable year, capital gains realized on dispositions of nontrade or business real estate were taxable at a 30 percent rate. Nonresident alien individuals are subject to taxation of gains and losses realized on dispositions of U.S. real property that are effectively connected with the conduct of a U.S. trade or business, or for which a trade or business election is in effect, at the same regular graduated rates applicable to U.S. individuals. Presented in Figure 2.1 is a decision path which describes the possible pre-FIRPTA treatment of gains or losses on dispositions of investments in U.S. real property by foreign investors.

Effect of Tax Treaties. Income tax treaties are bilateral agreements between two countries which modify the application of each country's statutory tax law as it applies to foreign persons. Tax treaties are designed to mitigate the effect of multiple taxation of foreign source income. The ultimate amount of tax liability paid by a foreign person to the country in which the income is earned must be determined by applying not only the statutory laws of that country, but also the bilateral tax treaty provisions. In the case of the United States, statutory tax law provides that treaty provisions take precedence in case of a Code-treaty conflict.<sup>42</sup> However, Congress has, on occasion, enacted legislation which conflicted with bilateral tax treaty provisions. For example, the taxation of capital gains on dispositions of U.S. real property not effectively connected with the conduct of a U.S. trade or business was in direct conflict with provisions found in

some tax treaties.<sup>43</sup> In this case, the treaty provisions continued to take precedence over the Code through December 31, 1984 or two years after the signing of a renegotiated treaty, whichever occurred last.<sup>44</sup>

Treaty modifications to the basic tax laws of a country take several forms: (1) a reduction in the rates at which the income earned by foreign taxpayers is taxed, (2) a tax exemption for income earned by foreign taxpayers, (3) a reduction in the taxable income of foreign taxpayers via the allowance of deductions otherwise disallowed by statutory law, and (4) changes in certain definitional rules. U.S. tax treaties incorporate each of these mechanisms in order to reduce the burden of double taxation.

As mentioned previously, Class I income (e.g., dividends) earned from a U.S. source by a nonresident alien individual is taxed at a 30 percent rate. Most bilateral tax treaties between the United States and other countries provide for a reduced 15 percent withholding rate on dividends paid to a nonresident alien by a U.S. corporation. This rate may be even lower in the case of a dividend paid by a U.S. subsidiary corporation to its foreign parent corporation. In the absence of the treaty agreement, the dividend income would be taxed in accordance with U.S. statutory law.

U.S. source income not effectively connected with the conduct of a U.S. trade or business is taxed at 30 percent (or a lower treaty rate) of the gross income amount. However, in the case of periodic or annual income from U.S. real property investments, the nonresident alien individual may make a Section 871(d) election which results in the taxation of such income on a net basis at regular U.S. tax rates applicable to single individuals. Statutory provisions hold that the

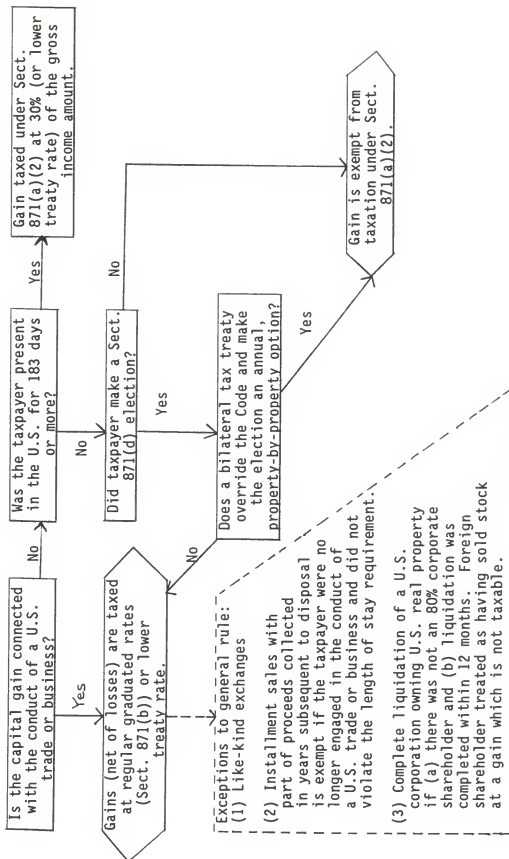


FIGURE 2.1  
PRE-FIRPTA TAXATION OF GAINS ON DISPOSITIONS OF  
U.S. REAL PROPERTY OWNED BY FOREIGN INVESTORS

Section 871(d) election, once made, is (1) irrevocable and, therefore, applies to all future taxable years unless the IRS consents to an earlier revocation; and (2) applicable to all U.S. real property holdings (both present and future).

Prior to post-1980 renegotiations, certain tax treaties made the Section 871(d) election an annual one and applicable on a property-by-property basis.<sup>45</sup> Therefore, through the interaction of statutory law and the bilateral tax treaty provisions, the nonresident alien individual could benefit from the tax advantages inherent in both the Class I and Class II income classifications. By making the Section 871(d) election on an annual basis it was possible under pre-FIRPTA law for the nonresident alien individual to (1) reduce his U.S. tax liability on income earned during the holding period and (2) avoid taxation of any gains on disposition by exercising the right granted by the tax treaty not to make the trade or business election for the year of disposition. In this case, the capital gain would be exempt from U.S. taxation provided the nonresident alien individual was in the United States for less than 183 days during the taxable year.

Collection of Taxes/Return Requirements. The collection of United States income taxes is based upon a "pay-as-you-go" principle to which exceptions are made by specific Code provisions. The pay-as-you-go principle is implemented through a combination of withholding at the income source and payment of estimated taxes periodically during the taxable year. Generally, a U.S. citizen or resident individual must pay the lesser of 90 percent of the current year's tax liability or 100 percent of the amount of tax shown on the previous year's return during the current taxable year in order to avoid a penalty for underpayment.<sup>46</sup>

The balance of tax that is owed must be paid by the due date for the return.

How and when income taxes levied against nonresident alien individuals are collected depends upon the nature of the income earned (e.g., interest, dividends, rents, etc.) and whether such income is effectively connected with the conduct of a U.S. trade or business. Income taxes owed on Class I income must be withheld at the source.<sup>47</sup> All persons (e.g., lessees or mortgagors of real property, fiduciaries and employers) "having control, receipt, custody, disposal or payment"<sup>48</sup> of Class I items of income due to nonresident alien individuals and foreign corporations are required to withhold 30 percent of the gross amount (or an amount based on a lower treaty rate). Annual or periodic income earned on a passive investment in U.S. real property is Class I income in the absence of a Section 871(d) election. Such income is, therefore, subject to the withholding requirement.

Nonresident alien individuals receiving income that is effectively connected with the conduct of a U.S. trade or business are exempt from the withholding-at-the-source requirement. However, the individual is required to file an exemption from withholding statement with the paying agent declaring that the item(s) of income is U.S. trade or business income.<sup>49</sup> In this instance, the nonresident alien individual must pay estimated taxes in three installments.<sup>50</sup> In addition, nonresident alien individuals engaged in the conduct of a U.S. trade or business at any time during the taxable year must file a return regardless of whether the individual has (1) any income effectively connected with the conduct of a U.S. trade or business, (2) any U.S. source income, or (3) only exempt income.<sup>51</sup> In the event the nonresident alien individual has no U.S.

source trade or business income, the return must still be filed but not all schedules must be completed. Instead, the individual must include with his return an explanation of any exclusions claimed.

Nonresident alien individuals not engaged in the conduct of a U.S. trade or business do not have to file an income tax return if their tax liability has been satisfied by withholding at the source.<sup>52</sup> However, this exception does not apply to nonresident alien individuals who have made the Section 871(d) election to be taxed as if their income from U.S. real property is effectively connected with the conduct of a U.S. trade or business.<sup>53</sup>

The foregoing discussion on the taxation of U.S. source income earned by nonresident alien individuals is based upon statutory law as it existed prior to June 18, 1980. The income tax provisions relating to the taxation of any annual or periodic income which is fixed or determinable in amount, or is effectively connected with the conduct of a U.S. trade or business, remains basically the same. That is, these items of income are unaffected by FIRPTA. On the other hand, the taxation of gains derived from dispositions of U.S. real property interests held, directly or indirectly, by foreign persons has been changed dramatically. Presented in the next section is a discussion of FIRPTA as it relates to nonresident alien individuals.

#### Post-FIRPTA Law

As noted in the discussion of pre-FIRPTA tax provisions relating to investments in U.S. real property by foreign persons, any gains realized on dispositions of these property interests were exempt from U.S. taxation under certain circumstances. This tax treatment of foreign persons was in direct contrast to the taxation of U.S. persons in similar



situations. Various interest groups succeeded in persuading members of Congress to take legislative action in order to eliminate the perceived inequity.

Initially, the impetus for a change in the taxation of foreign persons was focused upon U.S. farmland investments. In fact, the original 1978 proposal introduced by Senator Malcolm Wallop was only applicable to foreign investments in U.S. farmlands.<sup>54</sup> Efforts for a change were fueled by concern for what appeared to be increased foreign investments in U.S. farmlands; however, one report concluded that the fears of foreign dominance in the market for U.S. farmland were misplaced given that the "size of the purchase in a given year [. . .] involve[d] less than five percent of the total land in farms."<sup>55</sup> In spite of this and other similar assessments, the momentum for change was not stopped. During the nearly two years of Congressional debate that occurred, several bills which included explanations of the need for a change in the taxation of these gains were introduced.<sup>56</sup> Included among these discussions was the following:

The committee believes that it is essential to establish equity of tax treatment in U.S. real property between foreign and domestic investors. The committee does not intend by the provisions of this bill to impose a penalty on foreign investors or to discourage foreign investors from investing in the United States. However, the committee believes that the United States should not continue to provide an inducement through the tax laws for foreign investment in U.S. real property which affords the foreign investor a number of mechanisms to minimize or eliminate his tax on income from the property while at the same time effectively exempting him from U.S. tax on the gain realized from disposition of the property.<sup>57</sup>

One conclusion generally reached was that the exemption from taxation of

gains on sales or exchanges of U.S. real property gave the foreign investor a competitive advantage over domestic investors.

Legislative proposals varied from those which would have affected only gains derived from dispositions of foreign investments in U.S. farmlands to those which would have taxed gains from dispositions of all U.S. property (both real and personal) held by foreign persons. The culmination of the various lobbying efforts and legislative proposals was the passage of the Foreign Investment in Real Property Tax Act of 1980 on December 3, 1980. Although prior to FIRPTA's passage, foreign investors were exempt from taxation on all capital gains from dispositions of nontrade or business properties located in the United States, not all of such properties are affected by FIRPTA's provisions. Specifically, FIRPTA imposes a U.S. tax on the net gain realized from dispositions of United States real property or interests therein. The provisions of this act apply to dispositions occurring after June 18, 1980.

FIRPTA and later amendments thereto are codified in Internal Revenue Code Sections 897 (treatment of gains on dispositions of foreign investments in U.S. real property), 6039C (reporting requirements), 6652(g) (returns required under Section 6039C), and 1445 (withholding of tax on dispositions of U.S. real property interests). Under FIRPTA, gains realized on dispositions of "United States real property interests" (USRPI) by foreign persons are treated "as if the taxpayer were engaged in a trade or business within the United States during the taxable year and as if such gain or loss were effectively connected with such trade or business."<sup>58</sup> The disposition of a USRPI owned directly or indirectly by a foreign person triggers the application of FIRPTA.

Several definitional concepts are crucial to an understanding and the application of FIRPTA. These are discussed in the next section. Other aspects of FIRPTA discussed below are (1) the impact on taxation of annual income derived from real property investments, (2) sales or exchanges of direct real property interests, (3) sales or exchanges of indirect real property interest, (4) collection of taxes levied on sales or exchanges, and (5) reporting requirements.

Definitional Rules. The provisions of FIRPTA include statutory definitions of terms and concepts which are crucial to the application of its rules. For the most part, the definitional rules appear in Code Section 897 and the Treasury Regulations related thereto. Terms which are of special significance in this study are discussed below.

Only dispositions of U.S. real property interests (USRPIs) are taxed under Code Section 897. Treasury Reg. Sec. 1.897-1(g) defines a disposition as being "any transfer that would constitute a disposition by the transferor for any purpose of the Internal Revenue Code and regulations thereunder." It seems that Congress' intent was to regard a sale or exchange of a USRPI as a disposition; however, not all sales or exchanges of USRPIs will trigger the application of FIRPTA. Two requisites for the application of FIRPTA are (1) a disposition of a USRPI and (2) either a foreign entity or foreign person making such a disposition. As a general rule, the foreign person disposing of a USRPI will be subject to taxation of any gain unless such gain will be taxable to the recipient at a later date. Accordingly, the nonrecognition rules (e.g., transfers by gift, like-kind exchanges, tax-free corporate reorganizations, and transfers of U.S. real property to a controlled U.S. corporation) generally available to U.S. persons are also available to

foreign persons.<sup>59</sup> The amount of any gain or loss arising from the disposition of a USRPI is to be determined under the provisions of Code Section 1001(a) and (b).<sup>60</sup>

Under Section 897(c)(1)(A) a USRPI includes (1) a direct interest in real property located in the United States or the Virgin Islands, (2) an indirect interest in a domestic corporation owning primarily U.S. real property, and (3) an interest in a partnership, trust or estate, whether domestic or foreign owning a USRPI. An essential element in the definition of a USRPI is what constitutes real property. For FIRPTA purposes, real property includes:

1. Land and unsevered natural resources;
2. Improvements--buildings and their structural components and other structures that are fixed to land for an indefinite period of time.
3. Items of tangible personal property associated with the use of the real property (e.g., furnishings, mining equipment, movable walls, etc.).<sup>61</sup>

The other element in the definition of a USRPI is what constitutes an "interest in real property." Interests in real property under FIRPTA do not include an interest held solely as a creditor. The term does include, however, both direct and indirect interest as specified in Treasury Regulations. For example, co-ownerships, leasehold interests, time-sharing interests, a life estate, and reversionary interest in real property are considered as an interest in real property.<sup>62</sup>

Investments in domestic corporations that are U.S. real property holding corporations (USRPHC) are generally taxed under Section 897. Section 897(c)(2) defines a USRPHC as any corporation for which the fair

market value of its U.S. real property interests are at least 50 percent of the fair market value of its U.S. real property interests, its interests in real property located outside of the United States, plus any other of its assets which are used or held for use in a trade or business. Investments in domestic corporations are exempt from the Section 897 rules if the taxpayer establishes that the corporation was not a USRPHC during the shorter of the post-June 18, 1980 period during which the interest was held or the 5-year period ending with the disposition of the interest.<sup>63</sup>

Interests in a corporation which did not hold any USRPIs on the date that the stock interest was disposed of and which had disposed of its USRPIs in a fully taxable transaction or held interests which were no longer considered to be USRPIs are excluded from the definition of a USRPI.<sup>64</sup> These two exceptions remove certain foreign investments from the Section 897 requirements. In addition, the disposition of an interest in a USRPHC is exempt from the Section 897 rules provided (1) the foreign person's interest represented five percent or less of any class of stock of the company and (2) the company's stock is actively traded on an "established" securities market at some time during the shorter of the period of time since June 18, 1980 that the investment was held or the 5-year period ending on the investment's date of disposition.<sup>65</sup>

The USRPHC definition includes both domestic and foreign corporations. However, classifying a foreign corporation as a USRPHC has limited significance for a nonresident alien shareholder since the sale or exchange of shares in a foreign corporation is not treated as if effectively connected with a U.S. trade or business.<sup>66</sup> Interests in U.S.

real property owned by partnerships, trusts and estates are imputed to the owners or beneficial owners on a pro rata basis.

Impact of FIRPTA on Annual Income. The taxation of annual income earned by foreign investors on investments in U.S. real property is not affected by FIRPTA's provisions. As mentioned above, FIRPTA is restricted to the taxation of gains or losses on dispositions of USRPIs not effectively connected with a U.S. trade or business. Only the gains or losses otherwise classifiable as nontrade or business income are reclassified as being effectively connected trade or business income. The tax treatment accorded annual income earned from the investment is still occurs under rules which are similar to those which were in effect before the enactment of the FIRPTA legislation.

Disposition of Direct Real Property Investments. If a nonresident alien individual disposes of a USRPI which is not effectively connected with the conduct of a U.S. trade or business, FIRPTA requires that the disposition be taxed as if the nonresident alien were so engaged and the gain were effectively connected with such trade or business. The entire amount of any gain or loss realized on a sale or exchange is recognized in the taxable year in which the sale or exchange occurs or in subsequent taxable years in the case of an installment sale unless a nonrecognition procedure is applicable. FIRPTA permits losses from dispositions of a USRPI to be offset against any gain therefrom or against other U.S. trade or business income of the nonresident alien individual.

Prior to FIRPTA a nonresident alien individual whose real estate holdings were effectively connected with the conduct of a U.S. trade or business, or who had made an election to have the USRPI treated as such, could effectively avoid having part of the U.S. capital gain taxed by

engaging in an installment sale arrangement. Any deferred gains would escape U.S. taxation if, when the installments were collected, the foreign investor were no longer engaged in a U.S. trade or business. FIRPTA makes the installment method of converting an effectively connected gain into a nontaxable gain ineffective. An installment sale of a USRPI is treated as if it were effectively connected with the conduct of a U.S. trade or business regardless of when final collections are made. Therefore, installments received in periods after the trade or business has been terminated continue to be "tainted" and are taxed as trade or business income.<sup>67</sup>

Generally, the exchange of real property used in a trade or business or as an investment for similar property qualifies for nonrecognition under the provisions of Code Section 1031. Prior to the enactment of FIRPTA, exchanging U.S. real property for foreign real property was an effective means by which foreign persons avoided the U.S. capital gains tax. Under FIRPTA, the only like-kind exchanges which qualify for nonrecognition are exchanges of a USRPI for an interest the sale of which would be subject to taxation under FIRPTA's provisions. Since the sale of a foreign real property interest by a foreign person would not be taxable under U.S. statutory law, the exchange by a foreign person of a USRPI for a foreign real property interests would subject the gain to U.S. taxation under FIRPTA's provisions.

A direct interest in U.S. real property can be exchanged by a nonresident alien individual for stock in a controlled domestic or foreign corporation. The exchange of a direct interest in one USRPHC for a direct interest in another USRPHC seemingly would qualify for nonrecognition under the provisions of Code Section 897(e) since the

stock of a domestic USRPHC is taxed by Code Section 897(a). Three exceptions to this general rule that result in current taxation which may be encountered are

1. The exchange of a direct interest representing more than a five percent interest in a domestic USRPHC whose stock is actively traded for an interest in a domestic USRPHC not meeting these same criteria.
2. The transfer by a nonresident alien of U.S. real property interest to a domestic corporation which is not a USRPHC.
3. The exchange of a direct ownership of a USRPI by a nonresident alien for stock in a foreign corporation irrespective of whether the foreign corporation is a USRPHC or not.<sup>69</sup>

Disposition of Indirect Real Property Interests. Nonresident alien individuals may hold indirect interests in U.S. real property through corporations (domestic or foreign), partnerships, trusts, or estates. The type of entity in which the nonresident alien individual holds an interest has implications for the application of FIRPTA. However, dispositions of indirect interests will be discussed from the point of view of interests in a domestic corporation since the focus of this study is on USRPIs held directly or indirectly through domestic corporations.

Nonresident alien individuals may dispose of their interests in domestic corporations in several ways: (1) an outright sale of the stock, (2) a nonliquidating distribution of property by the corporation in exchange for its stock, (3) a complete liquidation, (4) corporate reorganizations, or (5) corporate spinoffs. The corporation may also distribute real property to its shareholders as a dividend. The same general rule applicable to dispositions of direct interests in U.S. real



property by nonresident alien individuals is applicable in the case of indirect investments.

Nonresident alien individuals disposing of an interest in a domestic corporation which is not a USRPHC are exempt from FIRPTA's provisions. However, they are required to obtain verification of the corporation's status by obtaining either a statement from the corporation itself declaring that it was not a USRPHC as of the date of disposal of the shareholders' interest or a determination from the Director of the Foreign Operations District as to whether the corporation was a USRPHC at the requisite date.<sup>70</sup>

Sale of a USRPHC's stock by a nonresident alien individual results in the recognition of any realized gain as if it were effectively connected with the conduct of a U.S. trade or business. The tax liability is determined using the regular tax rates applicable to U.S. taxpayers. Effectively, the same result occurs if the nonresident alien individual receives a liquidating distribution from the corporation in exchange for his stock unless the property received is itself a USRPI. If this exception is applicable, FIRPTA requires that the shareholder's basis for the property be equal to the corporation's basis for the property plus any gain recognized by the corporation and any taxes paid by the shareholder.<sup>71</sup> Some commentators have suggested that the latter adjustment may have been unintended and that the amount of gain recognized by the corporation should be the amount of this adjustment.<sup>72</sup> With the repeal of General Utilities doctrine and revisions to Code Section 311 by the TRA of 1986, with certain exceptions, the distributing corporation must recognize a gain or loss upon the distribution of appreciated property to its shareholders. As a result, the interaction

of these Code Sections with Code Section 897(f) result in the shareholder having a basis in the distributed property equal to its fair market value. The statute as written results in taxation of a portion of the appreciation of the value of the underlying real property twice, once when the property is received from the distributing corporation and again when the distributee disposes of the property.

Essentially, the same result described above occurs if a corporation distributes a USRPI to a nonresident alien individual as a dividend. Under Code Section 301, the dividend amount for a corporate or noncorporate shareholder is measured in terms of the fair market value of the property received on the distribution date. Were it not for FIRPTA, the property's value in the shareholder's hands would be its fair market value. However, if the property distributed constitutes a USRPI, FIRPTA requires that the distributee's (nonresident alien individual) basis be determined by using the rule noted above (i.e., corporation's basis plus any gain recognized by the corporation and any taxes paid by the shareholder).

The taxation of property distributions by corporations has been affected by the enactment of the Tax Reform Act of 1986 (TRA of 1986). Prior to its passage, corporations were generally exempt from taxation of any realized or realizable gains on property distributions to their shareholders either as partial liquidations in the case of a noncorporate shareholder (Section 311(d) of prior law) or complete liquidations (Sections 336 and 337 of prior law). Under TRA of 1986's provisions, the distribution of appreciated property results in the recognition of gain by the distributing corporation in the case of a partial or complete

liquidation<sup>73</sup> unless the distributee is an 80 percent or more subsidiary that is being completely liquidated.<sup>74</sup>

Alternative Minimum Tax. The nonresident alien individual engaged in trade or business within the United States is subject to an alternative minimum tax which is determined under rules similar to those that apply to U.S. individuals. The alternative minimum tax equals 21 percent (20 percent for pre-TRA of 1986 periods) of the lesser of (1) the individual's alternative minimum taxable income (AMTI) minus a statutory exemption for the taxable year or (2) the individual's net U.S. real property gain for the taxable year.<sup>75</sup> The net U.S. real property gain equals the excess of aggregate gains from dispositions of USRPIs during the taxable year over aggregate losses from such dispositions. The determination of the AMTI is basically the same as for U.S. citizens and residents.

Source of Income Rules. Prior to FIRPTA's enactment, the source of income rules contained in Code Section 861 specified that gains from the sale or exchange of real property were U.S. source income if the disposition took place within the United States. FIRPTA changed the rule to provide that gains, profits and income from disposition of a USRPI is U.S. source income irrespective of where the disposition takes place.<sup>76</sup> Nonresident alien individuals engaged in a U.S. trade or business during the taxable year are allowed a tax credit for taxes paid to a foreign country on income effectively connected with a U.S. trade or business. However, excluded from eligible taxes paid are those paid on income from sources within the United States.<sup>77</sup> Via this change in the source of income rules, FIRPTA effectively disallows a foreign tax credit for taxes paid to a foreign country on dispositions of USRPIs.

Collection of Taxes and Reporting Requirements. The initial FIRPTA provisions did not require the withholding of taxes on dispositions of a USRPI. In place of withholding, a complicated reporting system was included as a part of FIRPTA's provisions and was codified as Code Section 6039C. Informational returns were required to be filed by (1) domestic corporations which were USRPHCs and had one or more foreign shareholders, (2) entities (foreign corporations and all partnerships, estates and trusts) owning a USRPI and in which a foreign person held a substantial interest (fair market value greater than \$50,000), and (3) any foreign person (entities or individuals other than domestic corporations and U.S. citizens or residents) holding a direct investment in a USRPI and who was not engaged in the conduct of a U.S. trade or business.<sup>78</sup> Statutory law provided an alternative to most of the required reports--a security deposit.<sup>79</sup> The reporting system and the alternative security deposit system were designed as a means of enforcing FIRPTA's provisions. However, these techniques were highly criticized as being inefficient both in terms of the cost of administration and compliance as well as being ineffective in preventing tax avoidance. Partly as a result of enforcement difficulties and significant criticisms, Congress amended the reporting requirements and enacted a withholding requirement for income from dispositions of USRPIs. The Deficit Reduction Act of 1984 included provisions which replaced the bulk of the reporting requirements of Code Section 6039C and replaced them with the withholding requirements now found in Code Section 1445.

Code Section 1445 requires the purchaser of a USRPI from a foreign person to withhold a tax equal to a maximum of 10 percent of the amount

realized from the disposition unless at least one of five exceptions is applicable. The exceptions as noted in Code Section 1445(b) are:

1. The transferor furnishes an affidavit stating that he is not a foreign person and provides his identification number.
2. The domestic corporation furnishes a statement declaring that it is not now nor has it been during the applicable time (of Section 897(c)(1)(A)(ii)) a USRPHC.
3. A qualifying statement is obtained from the Secretary of the Treasury specifying that the transferor either reached an agreement with the Secretary for the payment of any taxes due or is exempt from any tax arising from dispositions of a USRPI.
4. The property sold is the personal residence of the nonresident alien individual and its value is not more than \$300,000.
5. The property item involves stock in a domestic corporation whose shares are actively traded on an established securities market, and the foreign person holds a five percent or less interest in such corporation.

Failure to comply with the provision of Code Section 1445 can expose the transferee (purchaser of the USRPI) to a liability for the taxes due. However, transferors are not relieved of the responsibility to pay the amount of taxes due as a result of net gains realized on dispositions of a USRPI. Also, the foreign person must file a return in the event that the taxes withheld do not satisfy his entire tax liability.

The remaining reporting requirements relate only to a foreign person holding a direct interest in U.S. real property. These foreign persons must submit a report which discloses:

1. The name and address of such person.

2. A description of all USRPI owned by such person at any time during the calendar year.
3. Any such other information as may be required by the Secretary in the Regulations.<sup>80</sup>

This requirement only applies to a foreign person holding a direct investment in U.S. real property during the calendar year, who did not engage in the conduct of a U.S. trade or business during the calendar year and whose USRPIs had a market value of \$50,000 or more at any time during the calendar year.

NOTES

<sup>1</sup>As used throughout this study, direct investments in U.S. real property has reference to direct ownership by an individual and indirect investment has reference to investments made via the ownership of shares of stock in a corporation.

<sup>2</sup>Revenue Act of 1913 38 Stat. 114, Sect. II(A)(1) and (B) as cited in Seidman's Legislative History of Federal Income Tax Laws, 1938-1861 (New York: Prentice-Hall, Inc, 1938), pp. 983 and 987.

<sup>3</sup>I.R.C. Sect. 1. For periods prior to the effective date of the TRA of 1986, tax rates for individuals varied from 11 percent to 50 percent with 14 intervening brackets.

<sup>4</sup>I.R.C. Sect. 151. Under prior law the exemption amount was \$1,080 per dependent for 1986. The TRA of 1986 increased the exemption amount to \$1,900, \$1,950, and \$2,000 for taxable years beginning in 1987, 1988, and 1989, respectively. However, the exemption amount is phased-out for taxable income amounts in excess of amounts specified in Code Sec. 1(g).

<sup>5</sup>I.R.C. Secs. 63(b) and (c). Prior law allowed a zero bracket amounts.

<sup>6</sup>Under Pre-TRA of 1986 law, 60 percent of net capital gains was deductible from gross income which resulted in an effective capital gain tax rate no greater than 20 percent (40 percent taxable gain times the 50 percent highest marginal tax rate).

<sup>7</sup>I.R.C. Secs. 1211 and 1212, respectively.

<sup>8</sup>I.R.C. Sec. 469(a).

<sup>9</sup>I.R.C. Sec. 469(j)(4).

<sup>10</sup>I.R.C. Sec. 469(i). The \$25,000 passive income is phased out for adjusted gross income in excess of \$150,000.

<sup>11</sup>I.R.C. Sec. 55(b)(2).

<sup>12</sup>I.R.C. Sec. 61. This section, in defining gross income, makes no distinction between corporate and individual taxpayers.

<sup>13</sup>I.R.C. Sec. 62(a).

<sup>14</sup>I.R.C. Sec. 11(b). Under prior tax law corporate rates varied from 15 percent to 46 percent with five intervening brackets and an alternative capital gains rate of 28 percent.

<sup>15</sup>I.R.C. Sec. 1212(a).

<sup>16</sup>I.R.C. Sec. 55(a).

<sup>17</sup>I.R.C. Sec. 882(b).

<sup>18</sup>I.R.C. Sec. 881.

<sup>19</sup>I.R.C. Sec. 882(d).

<sup>20</sup>Michael L. Moore, U.S. Tax Aspects of Doing Business Abroad (New York, NY: The American Institute of Certified Public Accountants, 1983), pp. 421-422.

<sup>21</sup>I.R.C. Secs. 871(a) and 881.

<sup>22</sup>I.R.C. Sec. 7701(b)(1)(B).

<sup>23</sup>I.R.C. Sec. 7701(b)(1).

<sup>24</sup>I.R.C. Sec. 871(a).

<sup>25</sup>Ibid.

<sup>26</sup>I.R.C. Sec. 871(a)(1).

<sup>27</sup>The Section 873 deductions are only allowed to the extent that they are effectively connected with a U.S. trade or business except as provided in Section 873(b), but only then if the foreign person is engaged in a U.S. trade or business.

<sup>28</sup>I.R.C. Sec. 1441(a).

<sup>29</sup>For purposes of this study, it is assumed that U.S. agricultural lands acquired by nonresident alien individuals are used in farming.

<sup>30</sup>U.S. Department of Agriculture, Foreign Ownership of U.S. Agricultural Land Through December 31, 1986 (Washington, D.C.: U.S. Dept. of Agriculture, April, 1987), p. 35.

<sup>31</sup>I.R.C. Sec. 871(d)(1).

<sup>32</sup>Regs. Sec. 1.864-4(c)(1).

<sup>33</sup>I.R.C. Sec. 6013(g).

<sup>34</sup>I.R.C. Sec. 6013(g)(5).

<sup>35</sup>Statutory exceptions are available for residents of Canada and Mexico. Under the provisions of Regs. Sec. 1.873-1(b)(2)(iii), residents of these countries are allowed all exemptions granted under Code Section 151.

<sup>36</sup>I.R.C. Sec. 1303(b) of prior tax law which was repealed by the TRA of 1986.

<sup>37</sup>I.R.C. Sec. 63(c) of prior tax law which was amended by the TRA of 1986.



<sup>38</sup>I.R.C. Sec. 873(a). Exceptions to the limitation of deductions to those that are effectively connected with the conduct of a U.S. trade or business are made for casualty losses deduction under Sec. 165(c)(3), the personal exemption, and contributions to U.S. charities.

<sup>39</sup>I.R.C. Sec. 2101(d).

<sup>40</sup>I.R.C. Secs. 2102(c)(1) and 2010(a) for nonresident alien individuals and U.S. citizen/resident aliens, respectively.

<sup>41</sup>Regs. Sec. 1.1441-2(a)(3).

<sup>42</sup>I.R.C. Secs. 894(a) and 7852(d) and Regs. Sec. 1.871-12(a).

<sup>43</sup>For example, the United States-Canada tax treaty in effect at the time of FIRPTA's enactment provided that capital gains realized by Canadian citizens/residents on U.S. situs real property were exempt from U.S. taxation.

<sup>44</sup>Omnibus Reconciliation Act of 1980, P.L. 96-499, 96th Cong., 2nd Sess., December 5, 1980, Sec. Nos. 1121-1125.

<sup>45</sup>For example, see Article X of the United States-Netherlands Antilles Income Tax Treaty and Article IX(2) of the United States-Switzerland Income Tax Treaty.

<sup>46</sup>I.R.C. Sec. 6654(d)(1)(B). Limited exceptions to the pay-as-you-go requirements are contained in Section 6654(e) (e.g., waivers at the option of the Secretary for unusual circumstances, or an instance when a small amount of liability exists).

<sup>47</sup>I.R.C. Secs. 1441 and 1442.

<sup>48</sup>I.R.C. Secs. 1441(a) and 1442(a) for nonresident alien individuals and foreign corporations, respectively.

<sup>49</sup>Regs. Sec. 1.1441-4(a)(2).

<sup>50</sup>I.R.C. Sec. 6654(j).

<sup>51</sup>Regs. Sec. 1.6012-1(b)(1).

<sup>52</sup>Regs. Sec. 1.6012-1(b)(2)(i).

<sup>53</sup>*Ibid.*

<sup>54</sup>S. 3414, 95th Congress, 1st Sess. (1978).

<sup>55</sup>U.S. Congress, Senate, Committee on Agriculture, Nutrition and Forestry, Foreign Investment in United States Agricultural Land (Washington, D.C.: U.S. Government Printing Office, 1979), p. 35.

<sup>56</sup>The predecessor bills included H.R. 1319, 96th Congress, 1st Sess. (1979); H.R. 1372, 96th Congress, 1st Sess. (1979); H.R. 1494, 96th Congress, 1st Sess. (1979); S. 192, 96th Congress, 1st Sess. (1979); and S. 208, 96th Congress, 1st Sess. (1979).

<sup>57</sup>U.S. Congress, Senate, Finance Committee Report on Taxation of Nonresident Alien on Gains from Sales of U.S. Real Property (H.R. 1212), 95th Congress, 2d Sess., January, 1979.

<sup>58</sup>I.R.C. Sec. 897(a).

<sup>59</sup>I.R.C. Sec. 897(e)(1) and Regs. Sec. 1.897-1(h), Example (1).

<sup>60</sup>Regs. Sec. 1.897-1(h).

<sup>61</sup>Regs. Sec. 1.897-1(b).

<sup>62</sup>Regs. Sec. 1.897-1(d)(2); also, see I.R.C. Sec. 897(c)(6)(A) and (B).

<sup>63</sup>I.R.C. Sec. 897(c)(1)(A).

<sup>64</sup>I.R.C. Sec. 897(c)(1)(B).

<sup>65</sup>I.R.C. Sec. 897(c)(3). The constructive ownership rules of Section 318(a) apply for purposes of determining whether the foreign person owns more than 5 percent of the stock of the subject corporation except for the attribution rules relating to interests in partnerships, estates, trusts, and corporations. These interests are attributed to the individual holding a 5 percent or more.

<sup>66</sup>Regs. Sec. 1.897-2(e)(1).

<sup>67</sup>Regs. Sec. 1.897-1(d)(2)(ii).

<sup>68</sup>I.R.C. Sec. 897(e)(1).

<sup>69</sup>I.R.C. Sec. 897(j).

<sup>70</sup>Regs. Sec. 1.897-2(g)(1)(i).

<sup>71</sup>I.R.C. Sec. 897(f).

<sup>72</sup>See, for example: Leonard R. Olsen, Jr., "Analysis of the Foreign Investment in Real Property Tax Act of 1980," International Tax Journal (April, 1981), pp. 275-276.

<sup>73</sup>I.R.C. Secs. 311(b) and 336, respectively.

<sup>74</sup>I.R.C. Sec. 337.

<sup>75</sup>I.R.C. Sec. 871(b).

<sup>76</sup>I.R.C. Sec. 861(a)(5).

<sup>77</sup>I.R.C. Sec. 906(a) and (b)(1).

<sup>78</sup>I.R.C. Sec. 6039C prior to the 1984 amendments.

<sup>79</sup>I.R.C. Sec. 6039C(b)(2) prior to amendment by the Tax Reform Act of 1984.

<sup>80</sup>I.R.C. Sec. 6039C(a).

### CHAPTER 3 MODEL DESCRIPTION

The research questions in this study are explored through a comparative analysis of after-tax internal rates of return (IRRs). A computer-based mathematical model is used to produce IRRs using various scenarios designed to address the specific research questions presented in Chapter 1. In addition, the most volatile variables are manipulated to test the sensitivity of the results (IRRs) to changes in the levels of the variables.

The discussion in this chapter begins with a conceptual and mathematical statement of the IRR model selected. The model's environmental and tax variables are described along with a description of the data bases from which variable values are obtained. This is followed by identification of the specific foreign countries which are used as the home countries of foreign investors. Applicable portions of the income tax systems of the selected foreign countries are also discussed. Finally, applicable bilateral tax treaty provisions which modify certain tax variables are discussed.

#### Description of the Model

Conceptually, the IRR is that interest rate which equates the present value of all cash inflows to all cash outflows during the entire life of an investment project.<sup>1</sup> In order to analyze the effect of taxes on the IRR, after-tax cashflows are used. As mentioned in Chapter 1, the IRR model used in this study is designed to produce an IRR which equates

the initial cash investment with the net after-tax cashflows received during the life of the investment and from the disposition of the investment. The analysis involves the derivation of IRRs for different alternative investment and tax situations.

#### Statement of the IRR Model

The basic mathematical model is presented in Figure 3-1. The first term represents the present value of net after-tax cashflows during the life of the investment. The present value of net after-tax cashflows from the sale of the investment is determined in the second term. As will be explained later, values for some variables are given, while for others the values are determined through subroutines. A listing of the formulas used to generate variable value is presented in Appendix A.

#### Justification for Use of the IRR Model

According to real estate investment analysis literature, the basic components of real estate returns which should be taken into account are (1) cashflows, (2) tax effects, and (3) changes in the equity value (ownership interest) which occur during the holding period. More specifically, considerations that are essential to obtaining an accurate measure of return are:<sup>2</sup>

1. The amount, timing and full tax consequences of the initial investment.
2. All cashflows from operations over the entire life of the investment.
3. All tax effects over the life of the investment.
4. The cash proceeds or cash outflows arising from the disposition after giving effect to all tax considerations including any capital gains tax.

Cash Investment = Present Value      Annual net after-tax cashflow over life of the investment      +      Net after-tax cashflow from disposition of the investment

$$I = \sum_{i=1}^n \left[ \frac{GI_i - OE_i - INT_i - PRIN_i + FE_i - DTX_i - FTX_i}{(1+r)^i} \right] + \left[ \frac{SP_n - DB_n + FEN_n - DCGTX_n - FCGTX_n}{(1+r)^n} \right]$$

#### Investment Environment Variables

- $I$  = initial investment in U.S. dollars made for period 1.  
 $GI_i$  = annual gross income (rent) for period  $i$ .  
 $OE_i$  = operating expenses for period  $i$ .  
 $INT_i$  = interest on outstanding debt for period  $i$ .  
 $PRIN_i$  = repayment of debt principal for period  $i$ .  
 $FE_i/FEN_n$  = the amount of foreign exchange gain or loss on the conversion of remittances to the home country in period  $i$  and at time of the disposition of the investment in period  $n$ , respectively.  
 $SP_n$  = selling price of the investment in period  $n$ .  
 $DB_n$  = balance of debt repaid at the time of disposition in period  $n$ .  
 $n$  = holding period in years.  
 $i$  = 1, 2, ...  $n$  years.

#### Tax Variables

- $DTX_i$  = amount of tax payable to the host country of the investment for period  $i$ .  
 $FTX_i$  = amount of tax payable to the home country of the investor.  
 $DCGTX_n$  = amount of tax payable to the host country on account of the disposition in period  $n$ .  
 $FCGTX_n$  = amount of tax payable to the home country of the investor on account of the sale.

#### Dependent Variable

- $r$  = internal rate of return

FIGURE 3-1  
MATHEMATICAL EXPRESSION OF THE INTERNAL RATE OF RETURN MODEL

5. Recognition of the time value of money.
6. Expression of the return as an index that permits comparison of different projects.

It is desirable that projects involving different amounts of invested capital, different tax consequences, and different termination dates be readily comparable. The IRR model takes all of these factors into account.

The IRR model overcomes some of the shortcomings of other analytical techniques such as the payback period, the accounting rate of return, and the net present value method. Unlike the pay-back period method, the IRR method considers cashflows over the entire life of the project and, also, considers the time value of money. The accounting rate of return, in addition to being affected by choices of accounting alternatives, disregards the time value of money and does not take into account capital appreciation until it is realized. Both the net present value and IRR methods consider all cashflows over the life of the investment at their discounted values on an a priori basis. However, the IRR method yields results in a more comparative form in that it produces an index (the IRR) which measures the profitability or value in terms of a common denominator.<sup>3</sup>

The IRR method does have some limitations. The methodology implicitly assumes that all cashflows are invested and reinvested at the same rate. Violation of this assumption causes either an understatement of IRR (investment or reinvestment rates are greater than IRR) or an overstatement of IRR (investment or reinvestment rates are less than IRR). Also, if there are multiple sign changes (positive and negative) in the cashflows during the life of the investment, there may not be a

unique IRR which satisfies the model. These limitations are kept in mind in the analysis of the results.

### Investment Environmental Variables

The main emphasis in this study is on the tax effects of FIRPTA on after-tax IRRs. The determination of after-tax IRRs necessitates consideration of both tax and nontax factors (investment environmental variables). The investment environmental variables used herein are restricted to presumed investments in U.S. agricultural lands for reasons discussed previously in Chapter 1.

Values for the investment environmental variables have been obtained mainly from U.S. government publications. Most of these values are held constant throughout the analysis in order to focus upon the tax effect of interest. However, those investment environmental variables whose values change over time are allowed to vary via the use of growth rates. In addition, since certain values, which may impact on the results, are chosen arbitrarily (e.g., holding periods and interest rates), their values are subjected to limited sensitivity analysis. The specific investment environmental variables are discussed next. For comparative purposes, the same values are used for U.S. and foreign persons for each alternative set of assumed circumstances.

### Initial Investment in U.S. Dollars

Numerous factors affect the prices paid for U.S. agricultural land including its current and/or intended use, the location of the land, the number of acres purchased, as well as other market factors. Actual prices paid for U.S. agricultural land categorized by domestic and foreign purchasers are unavailable. According to a USDA report<sup>4</sup> average



per acre prices paid for U.S. agricultural land situated in the 48 contiguous states were as follows:

Average Price Per Acre of Farmland

1986	1985	1984	1983	1982	1981	1980	1979	1978	1977	1976
\$628	\$657	\$879	\$854	\$835	\$887	\$779	\$618	\$591	\$654	\$528

The rapid increases in farmland prices of the 1970's subsided to an average annual rate of approximately three percent for the 11-period 1976-1986 and a decrease of 6.1 percent for the five-year period ending in 1986. The average price per acre paid by all purchasers of agricultural land during the year ended December 31, 1986, as reported by the Economic Research Service (ERS) of the U.S. Department of Agriculture (USDA) is used as a proxy for the actual price of an investment in U.S. agricultural land in 1986.

Farmland prices continued to decline in 1987 as farmland values continued to adjust to income and other economic factors but the degree of the decline was less than in 1986.<sup>5</sup> Over the longer term, farmland prices are expected to rebound as a result of a combination of several factors including (1) a reduction in nominal interest rates (interest rates declined to their lowest level since the mid-1970s during the latter part of 1986), (2) accelerating inflation, and (3) increases in the demand for agricultural products.

The initial investment amount (I) is dependent upon the number of acres purchased, the price per acre, and the debt-to-purchase-price ratio. USDA data show that owners of 69 percent of the acquired parcels in 1986 purchased an average of 1,000 acres or more per parcel.<sup>6</sup> In the case of indirect investments, it is assumed that the corporation has only one shareholder. Therefore, for purposes of this study it is assumed

that investments in U.S. agricultural land average 1,000 acres for direct and indirect investments. Using 1986 price-per-acre data, the total purchase price is assumed to be \$628,000. The initial cash investment is equal to the proportion of the purchase price (PP) paid in cash at the time of purchase. In other words,

$$I = PP(1 - D/PP) \quad (1)$$

where:  $D/PP$  = debt-to-purchase price ratio

To test the sensitivity of the IRR to the initial cash investment, initial cash investments are assumed to be equal to 25 percent, 50 percent, and 100 percent of the purchase price.

#### Annual Gross Income (GI<sub>j</sub>)

FIRPTA's provisions affect passive foreign interests in U.S. real property; that is, interests not otherwise classified as effectively connected with the conduct of a U.S. trade or business. This study focuses upon investments in U.S. agricultural land held as a passive investment and leased out on a net lease basis. The lessor's annual income consists of net lease payments received from the lessee.

For U.S. income tax purposes, the amount included in the gross income of the lessor in the case of nonresident alien individuals and foreign corporations is equal to the net lease payments plus normal lessor's costs (e.g., repairs, taxes and insurance) paid by the lessee.<sup>7</sup> The gross annual rent as reported by the USDA<sup>8</sup> is used as the amount of annual gross income for the assumed investments in U.S. agricultural land. However, since the USDA's data reveal wide differences in annual gross rentals among the various regions of the United States, a weighted average gross annual rental amount has been computed using the USDA data. Information used in computing the weighted average gross rental amount is

presented in Appendix B. The gross annual rent amount per acre is assumed to be equal to \$48 (the 1986 weighted average gross rent per acre for 22 states).<sup>9</sup> This translates into gross annual income from a 1,000 acre investment in U.S. agricultural land of \$48,000. This amount is assumed to be the income for the first year in the life of the investment. The gross annual income for subsequent years is equal to the first year's gross income adjusted for the expected growth in earnings and is determined as follows:

$$GI_i = GI_0(1 + g_1)^i \quad (2)$$

where  $GI_0$  = initial gross income (average for 1986)

$g_1$  = expected annual growth rate

$i = 1, 2, \dots, n$

Percentage changes in weighted average gross rents per acre determined from data in Appendix B for the years 1978 through 1986 are as follows:

<u>1986</u>	<u>1985</u>	<u>1984</u>	<u>1983</u>	<u>1982</u>	<u>1981</u>	<u>1980</u>	<u>1979</u>	<u>1978</u>
-8.0	-7.2	+0.6	-1.2	+16.9	-4.4	-8.7	+4.9	+9.7

On average gross rentals increased by 2.2 percent during the period 1978-1986. However, the change in gross rentals for the latter five years increased by an average of only 0.22 percent and declined an average of about four percent during the last four years for which data are reported. For purposes of analysis growth rates of -2 percent, +2 percent, and +6 percent are used in order to test the sensitivity of the results to growth rates.

#### Operating Expenses ( $OE_i$ )

The operating expenses incurred in conjunction with an investment in agricultural land leased on a net lease basis consist mainly of repairs,

property taxes, and depreciation. For purposes of this study, it is assumed that any structural improvements comprise only a minor portion of the investment. Therefore, depreciation is assumed to be immaterial in amount and is ignored.

As previously mentioned, it is assumed that the real estate investment in question is held as a passive investment. Therefore, any rental income earned is Class I income (i.e., not effectively connected with the conduct of a U.S. trade or business). Statutory provisions specify that in the case of Class I income foreign taxpayers are taxed at a flat 30 percent rate on gross rental income. No operating expense deductions are allowed unless the foreign taxpayer elects to have such income taxed as if it were effectively connected with the conduct of a U.S. trade or business. Consequently, the cashflow effects of operating expenses depend upon whether such an election is in effect. In the absence of the trade or business election, operating expenses are treated as a reduction in gross rental income with no effect upon the tax liability. If a trade or business election is in effect, operating expenses affect both the before- and after-tax cashflows.

Irrespective of its effect on cashflows, the amount of operating expenses is determined as follows:

$$OE_j = OE_0(1 + g_2)^j \quad (3)$$

where  $OE_0$  = initial operating expenses for 1986

$g_2$  = annual growth rate for operating expenses

The initial operating expenses are assumed to grow alternatively at rates of 2 percent and 5 percent.

The latest available data on the amount of operating expenses expressed in per acre amounts are contained in a 1980 USDA publication<sup>10</sup>

which indicates that property taxes averaged about \$4 per acre for the year 1978. In addition to property taxes, landlords may incur expenses for minor repairs. In O'Dell's, 1980 dissertation, operating expenses were assumed to be \$5 per acre or approximately 11.5 percent of the gross income per acre. Property taxes (the major operating expense paid by the absentee landlord) expressed as a percentage of total U.S. agricultural production averaged 3.6 percent for the period 1975-1984; 3.4 percent, 1975-1984; and 3.1 percent, 1980-1984.<sup>11</sup> There has been a decline in property taxes expressed as a percentage of total production expenses due, in part, to a decline in land values. Operating expenses are assumed to be about \$5.50 per acre or 11.5 percent of gross rent per acre. This translates into initial operating expenses of \$5,500 for a 1,000 acre investment.

#### Interest (INT) and Repayment of Debt Principal (PRIN)

According to USDA data,<sup>12</sup> ignoring a large acquisition by a U.S./U.K. corporation, a larger percentage of foreign investors reported paying cash for their investments in U.S. agricultural land than any other method of acquisition. During the period 1981 through 1985, an average of 34 percent of all such investments were for cash only. In 1986, this average increased to 59 percent. An average of 9 percent was for credit only; a combination of cash and credit accounted for an average of 2 percent; and an "other method only" category accounted for about 23 percent during 1986. On the other hand, another source indicates that credit-financing was used in 82 percent of all transfers of U.S. agricultural land (foreign and domestic owners) during 1985 "as compared with 90 percent or more during the peak value years of 1979-81."<sup>13</sup> This suggests that U.S. investors use credit far more extensively

than foreign investors. A possible reason for this difference in the use of credit by U.S. investors as compared to foreign investors may be cultural/custom differences in the use of credit. The debt-to-purchase-price ratio for all transfers averaged 76 percent during the same period.

Based upon the data cited above, the following alternatives are used in determining the amount of debt used in agricultural land acquisitions.

1. The purchase price is paid in cash (i.e., D/PP ratio of zero).
2. 50 percent of the purchase price is paid in cash (i.e., a D/PP ratio of 50 percent).
3. 25 percent of the purchase price is paid in cash (i.e., a D/PP ratio of 75 percent).

Although, acquisitions have been made utilizing 100 percent credit, this alternative is not assumed because the methodology being used does not lend itself to a zero cash investment assumption.

The amount of interest for each period is computed based upon an annual rate of 10 percent. This percentage is an average of rates reported for three sources of farm real estate financing in a USDA report.<sup>14</sup> For purposes of sensitivity analysis, 8 percent and 12 percent rates are also used to compute alternative IRRs. The computation of the annual interest charge is as follows:

$$INT_i = DB_i(\text{Rate}) \quad (4)$$

where  $DB_i$  = the debt balance at the beginning of period  $i$ ; and

Rate = 10 percent.

Normally, debt payments are due monthly. However, to simplify calculations, it is assumed that payments are made in equal annual installments. The amount of each payment applied against principal is determined as follows:

$$PRIN_i = PYMT - INT_i \quad (5)$$

where PYMT = equal annual installment of principal and interest based upon a term of 30 years.

Foreign Exchange Gain or Loss on Conversion of Remittances to the Home Country of the Foreign Investor ( $FE_i/FEN_i$ )

To the extent that the currency exchange rate changes from the time the foreign investor transmits investment funds to the United States and the point(s) at which the return on the investments is repatriated, the foreign investor will experience a foreign exchange gain or loss. These foreign exchange gains and losses, in turn, affect the amount of gain or loss ultimately realized and, therefore, the rate of return on investments made outside of one's home country.

The model used in this study includes consideration of foreign exchange gains and losses which may be incurred by foreign persons investing in the United States. It is assumed that negative cashflows for any period(s) during the life of the investments are provided for through corporate or individual borrowings obtained from United States sources. Any such borrowings are assumed to be repaid out of the sales proceeds. Therefore, foreign exchange gains or losses are assumed to occur when (1) dividends or net rents (after expense) are transmitted to the foreign investor and (2) at the termination of the investment occurs either by disposition of the U.S. real estate or sale of the investor's stock in the domestic corporation. Whether and to what extent foreign investors realize foreign exchange gains or losses from the flow of funds between their home country and the United States depend upon (1) the rate of exchange at the time of repatriation of invested funds relative to the rate of exchange existing at the time of the initial investment and (2) the extent to which the investor engaged in hedging activities in order

to minimize the risk of exchange rate changes. The determination of foreign exchange gains or losses on annual dividends or rents and the repatriation of the net sales proceeds realized upon final disposition of the investment are discussed below.

Annual Gain or Loss (FE<sub>i</sub>). It is assumed that available funds are distributed to nonresident alien individual investors on an annual basis. In the case of direct investments, 100 percent of the annual net income is assumed to be transmitted to the foreign investor. Domestic corporations owned by the foreign investor are assumed to pay out different proportions of available funds. The assumption of a 100 percent dividend payout ratio parallels flows to holders of direct investments. The foreign exchange gain or loss realized from annual transmittals in the case of direct investments is calculated as follows:

$$FE_i = NET_i[(1 + ACFER)^i - 1] \quad (6)$$

where  $NET_i$  = Net after-tax cashflow for each period or,

$$NET_i = GI_i - PYMT_i - PRIN_i - DTX_i$$

$ACFER$  = annual change in the foreign exchange rate  
relative to the U.S. dollar.

$DIV_i$  = amount of earnings distributed by the corporation  
the computation of which is shown in equation  
13.2.

In the case of indirect investments the annual after-tax cashflow is computed as follows:

$$NET_i = DIV_i - DTX_i$$

The degree of flexibility in currency exchange rates differs among countries depending, in part, upon whether the currency is allowed to float independently or not. Therefore, the amount of foreign exchange



gain or loss can differ among foreign investors from different countries because of differences in exchange rates as well as the timing of transmittals and the extent of repatriations of funds. However, to simplify calculations, it is assumed that a single rate of change is applicable for all foreign investors. Due to the cyclical nature of foreign exchange rates, it is assumed that rates are experiencing three different trends: increasing, decreasing, and remaining stable. Arbitrarily chosen percentage rates of +2, -2, and 0 are used for computational purposes.

Foreign Exchange Gain or Loss--Sale of Investment (FEN<sub>i</sub>). Any difference in the foreign exchange rate at the time of the transmittal of net sales proceeds (after any U.S. income taxes) relative to the exchange rate in effect at the time of the initial investment produces a foreign exchange gain or loss. The calculation of such gain or loss for direct investments is as follows:

$$FEN_n = NET_n[(1 + ACFER)^n - 1] \quad (7)$$

where  $NET_n$  = Net after-tax cashflow in period  $n$  from the disposition of the investment or,

$$NET_n = SP_n - DB_n - DCGTX_n - ADLI$$

$ADLI$  = amounts borrowed to cover negative cashflows.

For indirect investments the computation of the net after-tax cashflow is as follows:

$$NET_n = SP_n - DB_n - DCGTX_n - ADLI$$

#### Selling Price of the Investment (SP<sub>n</sub>)

For many years the prospect of rapid appreciation in market value had been an attractive feature of real estate investments in general and investments in agricultural land, in particular. The greater the rate of

appreciation in market prices relative to the initial purchase price, the greater the potential gain upon sale or exchange.

During the 1970s farmland prices increased at an average annual rate of 13.5 percent (1972-1979). This was in response to an increase in the demand for farmland brought on by such factors as (1) a rapidly expanding export market, (2) accelerating inflation and (3) relatively low real interest rates (nominal interest rate less the inflation rate).

Beginning in the 1980s these three factors which had contributed to the rapid expansion of the 1970s reversed direction. According to one source, exports peaked in 1981, declined by 15 percent in 1982 and then leveled off in 1983.<sup>15</sup> In addition domestic demand for agricultural products weakened. Real interest rates also began a rapid rise from one or two percent in the 1970s to approximately 8 percent by the early 1980s.

Considering past trends and uncertainties surrounding future trends in farmland prices, the selling price of the investment is determined by taking into account differing growth rates. Specifically, it is computed as follows:

$$SP = (1-SE)[PP(1 + g_3)^n] \quad (8)$$

where SE = Selling expenses

$g_3$  = annual rate of appreciation (decline) in farmland prices.

The above calculation yields a net selling price--the gross selling price less estimated selling expenses which are assumed to be equal to 10 percent of the gross selling price.<sup>16</sup> As stated earlier, the purchase price is assumed to equal \$628,000. Different rates of growth are used in order to test for the sensitivity of the results to changes in the

rate of appreciation in farmland prices. Rates used allow for negative as well as possible changes and include a decrease of 2 percent and increases of 5 percent and 10 percent annually.

#### Balance of Debt at Time of Sale ( $DB_n$ )

The debt balance at the time of sale is equal to that portion of the initial debt outstanding which remains unpaid at the time of sale.

Computationally, it is determined as follows:

$$DB_n = DB_0 - \sum_{i=1}^n PRIN \quad (9)$$

The amount of the outstanding debt is subtracted from the net selling price in determining the before-tax cashflow from the sale of the investment.

#### Holding Period in Years( $n$ )

This study assumes holding periods of 5, 10, and 20 years. These periods were chosen arbitrarily. Information about actual holding periods is not available in published sources.

#### Tax Variables--United States

The differential tax effects of pre- and post-FIRPTA U.S. taxation of investments in U.S. agricultural land is the primary impetus for this study. In all instances, the tax amount of interest is the incremental federal income taxes assessed as a result of agricultural land investment income or loss (rent tax) and gains realized upon sale or exchange of the investment (gain tax). Therefore, the mathematical descriptions of the tax variables which follow are designed to capture the incremental tax effect of holding and disposing of investments in U.S. agricultural land taking into account (1) the form of ownership (direct and indirect through domestic corporations), (2) residency of the investor (U.S. and

foreign) and (3) effective U.S. tax rates for both pre- and post-1986 periods together with and without FIRPTA's provisions. Although there are likely to be other taxes assessed against investors in U.S. agricultural land (e.g., state income taxes and federal estate and gift taxes), these additional losses are ignored in this study.

United States taxes levied against the foreign investor for direct investments in U.S. agricultural land are determined under the following alternative assumptions:

1. Rental income is taxed as Class I income and capital gains are tax exempt (pre-FIRPTA).
2. Rental income is taxed as Class II income through the use of a Section 871(d) election and capital gains are tax exempt through tax treaty provisions (pre-FIRPTA).
3. Rental income and capital gains are taxed as Class II income (post-FIRPTA with a Section 871(d) election made without a tax treaty being available).
4. Rental income is taxed as Class I income and capital gains are taxed as Class II income (post-FIRPTA without a Section 871(d) election).

For purposes of analysis, the taxation of capital gains realized by the nonresident alien individual from dispositions of interest in a domestic corporation classified as a U.S. real property holding corporation is determined using the following alternative assumptions:

1. Capital gains realized are tax exempt (pre-FIRPTA and assuming the length of stay requirement of Section 871(a)(2) is not violated).

2. Capital gains realized are taxed at a 30 rate percent (or less if reduced by a tax treaty provision) of the gross amount (pre-FIRPTA and the length of stay requirement of Section 871(a)(2) is violated).
3. Capital gains and losses are classified as Class II income (post-FIRPTA or the length of stay requirement is violated and a Section 871(d) election is in effect).

For comparability purposes certain common characteristics are presumed to exist between U.S. and foreign individual investors. Both groups are assumed to file as a single individual and have no itemized deductions. Additionally, both groups of investors are arbitrarily assumed to have total worldwide income (excluding farm income or losses) of \$60,000 for the pre-TRA of 1986 period. Since the TRA of 1986 limits the extent to which passive losses may be offset against other taxable income, a relevant assumption for the post-TRA of 1986 period is the amount of other passive income. Three assumptions are made for both the U.S. and foreign individual investors: (1) other passive income is equal to \$60,000; (2) other passive income equal to \$20,000; and (3) other passive income is equal to zero.

Under the provisions of Code Section 873, a nonresident alien individual's taxable income is equal to gross income without any deductions unless the income is effectively connected with the conduct of a U.S. trade or business. Therefore, when it is assumed that rental income is Class I income (assumptions "1" and "4" above relating to direct investments by a nonresident alien individual), other taxable U.S. source income is assumed to be equal to zero. On the other hand, if the direct investment in U.S. agricultural land is assumed to be effectively

connected with the conduct of a U.S. trade or business (i.e., Section 871(d) election is in effect), the nonresident alien individual is assumed to have other taxable U.S. source income of \$60,000.

#### U.S. Citizens/Resident Alien Individuals

The U.S. citizen/resident investor is taxed on his worldwide income. The amount of U.S. taxes incurred on investments in U.S. agricultural land depends on (1) whether the investment is made directly or indirectly, (2) the level of other taxable income, (3) effective U.S. tax rates, and other factors. The tax computations which follow are designed to measure the incremental tax effect of the investment. Separate computations are given for direct and indirect investments in U.S. agricultural land.

Direct Investments--Rent Tax. The U.S. taxes imposed as a result of direct investments in U.S. agricultural land are categorized as a rent tax ( $DTX_i$ ) and a capital gains tax ( $DCGTX_n$ ). The computation of the rent tax is as follows:

$$DTX_i = (OTI - EXEMP + FTXI_i)USR - (OTI - EXEMP)USR \quad (10)$$

where  $OTI$  = Other taxable income (\$60,000, \$20,000, and 0)

$EXEMP$  = One personal exemption

$FTXI_i$  = Farm taxable income ( $GI_i - OE_i - DINT_i$ ) for period  $i$ .

$USR$  = U.S. rate for single filing status

$GI_i$  = Gross rental income for period  $i$

$OE_i$  = Operating expenses for period  $i$

$DINT_i$  = Deductible interest for period  $i$

The amount of the personal exemption is assumed to be \$1,040 and \$2,000 for pre-TRA of 1986, post-TRA of 1986 computations, respectively.

Since DTX is a measure of the incremental tax effect of farmland taxable income, it can be a negative amount if a loss is incurred. In this case the farmland investment results in a tax savings via a reduction in taxes otherwise payable on other taxable income (pre-TRA of 1986) or only on other passive income (post-TRA of 1986).

For taxable years preceding the effective date of the Tax Reform Act of 1986, the individual investor's allowable deduction for investment related interest costs is limited to \$10,000 plus net investment income.<sup>17</sup> After the transition period for the TRA of 1986, deductible investment interest will be essentially limited to net investment income except in the case of rental real estate activities in which the taxpayer actively participates. In this case the taxpayer's allowable deductions, including interest are limited to investment income plus \$25,000.<sup>18</sup> The subject investors for this study are assumed to be ineligible for this exception. In either case any unused investment interest may be carried over to the succeeding taxable year and included in the amount of deductible interest for such year. The Section 163(d) limitation applies to each taxable year. The deductible interest for pre-TRA of 1986 taxable years is determined as follows:

$$DINT_i = GI_i - OE_i + \$10,000, \text{ if} \quad (11.1)$$

$$(INT_i + CARRY_{i-1} \leq GI_i - OE_i + \$10,000)$$

where

$CARRY_{i-1}$  = the cumulative amount of disallowed interest in prior periods from  $i = 1$  through  $i-1$

$$\text{OR } DINT_i = INT_i + CARRY_{i-1}, \text{ if} \quad (11.2)$$

$$(INT_i + CARRY_{i-1} > GI_i - OE_i + \$10,000)$$

For post-TRA of 1986 periods, deductible interest for each taxable year is calculated as follows:

$$DINT_i = GI_i - OE_i \text{ OR } INT_i + CARRY_{i-1}, \quad (11.3)$$

whichever is less

The amount of interest carried over to succeeding periods is calculated as follows:

$$CARRY_i = CARRY_{i-1} + INT_i - DINT_i \quad (11.4)$$

In addition to the deductible interest limitation, two other provisions may limit or eliminate potential tax savings whenever there is a loss from farmland investments. The presumed investment used in this study is of the type which may fall within the definition of an "activity not engaged in for profit" under the provisions of Code Section 183(c). However, it is assumed that the activity meets the criterion for exclusion from the "hobby loss" provisions of Code Section 183<sup>19</sup> (i.e., the activity is engaged in for profit). The other relevant Code provision limits the deductible losses to the amount for which the taxpayer is at risk.<sup>20</sup> Since the investor is not engaged in the activity of farming, but, rather, is holding real property as an investment, the "at risk" rules are inapplicable for periods prior to January 1, 1987.<sup>21</sup> However, the at risk rules are ignored in all of the computations.

Direct Investments--Capital Gains Tax (DCGT<sub>Xn</sub>). The disposition of a capital asset<sup>22</sup> results in the realization of a capital gain or loss. Any capital gain (or loss) realized from the disposition of the presumed investment in U.S. agricultural land qualifies as long-term capital gain or loss since all of the assumed holding periods exceed the required minimum holding period.<sup>23</sup> The computation of the incremental tax effect of capital gains (or losses) is as follows:



$$\begin{aligned} \text{DCGTX}_n = & [(\text{SP}-\text{PP})\text{TCG} + \text{OTI} - \text{EXEMP} + \text{FTXI}_i]\text{USR} \\ & - (\text{OTI}_i - \text{EXEMP} + \text{FTXI}_i)\text{USR} \end{aligned} \quad (12)$$

where SP = Net selling price =  $(1-\text{SE})(\text{PP})(1+g_3)^n$

SE = Estimated selling expenses = 10% of SP

PP = Original purchase price

TCG = Taxable portion of capital gain

= .4 and 1.0 for pre- and post-TRA of 1986 periods,  
respectively.

$g_3$  = Annual growth rate for farmland prices

Farmland prices are assumed to grow alternatively at rates of -5 percent, 2 percent, 5 percent, and 10 percent.

Indirect Investments--Rent Tax ( $\text{DTX}_{ci}$ ). For comparison purposes it is assumed that individuals also invest in U.S. agricultural land indirectly through a domestic corporation which holds primarily U.S. agricultural land. The corporation's primary source of income is assumed to be in the form of rental income--compensation for the use of its agricultural land. Any rent tax is, therefore, assumed to be assessed against the domestic corporation and is calculated as follows:

$$\text{DTX}_{ci} = (\text{OTI}_c + \text{FTXBI}_{ci})\text{USR} - (\text{OTI}_c)\text{USR} \quad (13.1)$$

All variables are as defined previously except for the subscripts "ci" and "c" in which the "c" subscript identifies the variable relating to the corporation rather than an individual. The investment interest deduction limitation does not apply to corporations.<sup>24</sup>

The individual investor is assumed to receive annual income from his indirect investment in U.S. agricultural land in the form of dividends. In determining the after-tax IRR of an indirect investment in U.S. agricultural land, it is necessary to take into account both direct and

indirect income taxes assessed against the income stream. Income earned through a corporation is subject to double taxation--once at the corporate level and once at the shareholder level. Both levels of tax are taken into account and the taxes levied at the shareholder level are calculated as follows in the case of U.S. citizen and resident alien individuals:

$$DTX_{Si} = [(OTI - EXEMP + DIV_i)USR - (OTI - EXEMP)USR] \quad (13.2)$$

$$\text{where } DIV_i = [(FTXBI_{Ci} - DTX_{Ci})DIVR]$$

$DIVR$  = Dividend payout ratio (alternatively 0, 60%, 80%, and 100%)

Indirect Investments--Capital Gains Tax (DCGTX). In the case of indirect investments made through a domestic corporation, the disposition of U.S. agricultural land at a gain may result in taxation at both the corporate and shareholder levels. The tax consequences at the corporate level for periods prior to the enactment of the TRA of 1986 depend upon whether the corporation (1) sells the property and continues to operate or (2) liquidates within the requisite period of time after the adoption of a plan of liquidation.<sup>25</sup> For purposes of analysis it is assumed that the corporation disposes of its investment and remits the remaining cash to the shareholders in exchange for their stock. The computation of the capital gain tax at the corporate level for pre-TRA of 1986 periods, assuming no other capital gains, is as follows:

$$DCGTX_{Cn} = \text{the lesser of } (SP-PP).28 \text{ OR} \quad (14.1a)$$

$$[(SP-PP)+OTI_n+FTXI_n-ADLI]USR - (OTI+FTXI_n)USR \quad (14.1b)$$

Since it was possible for a corporation to avoid the capital gain tax in a complete liquidation which qualified for nonrecognition under Section

336 of the old Code, IRRs are also computed assuming no capital gain tax at the corporate level.

Under post-TRA of 1986 law, a corporation is no longer exempt from the capital gain tax upon liquidation except in the special case of a parent-subsidiary relationship.<sup>26</sup> Any gain or loss realized by the distributing corporation on the distribution of property in a complete liquidation shall be recognized by the liquidating corporation.<sup>27</sup> In addition, the alternative corporate capital gain rate of 28 percent which was a part of the Internal Revenue Code of 1954 is generally not applicable for taxable years beginning on or after July 1, 1987. The computation of the U.S. capital gain tax at the corporate level for post-TRA of 1986 periods is as follows:

$$DCGTX_{CN} = [(SP-PP)+OTI+FTXI_n-ADLI]USR - (OTI+FTXI_n)USR \quad (14.2)$$

In the event the distribution of property in complete liquidation of the corporation results in a loss, such loss may only be offset against other capital gains realized in the same taxable year. Any excess net capital loss may be carried back to each of the three preceding taxable years and the forward to the immediately succeeding five years as a short-term capital loss.<sup>28</sup> Under the assumptions used in this analysis the capital loss carryover privilege is of no value since the realization of capital gain or loss is assumed to only occur at the time of liquidation of the corporation.

Amounts received by the shareholders in a complete liquidation are considered to be in full payment for their stock.<sup>29</sup> Therefore, shareholders realize a capital gain or loss equal to the difference between the amount realized and the adjusted basis of the stock surrendered.<sup>30</sup> For the individual shareholder the taxable portion of any

long-term capital gain is 40 percent and 100 percent for pre-TRA of 1986 and post-TRA of 1986, respectively. The computation of the capital gain tax at the shareholder level for U.S. citizens/residents triggered by a complete liquidation of his corporate shares is as follows:

$$\begin{aligned} \text{DCGTX}_{\text{SN}} = & [(\text{SP-PP-DCGTX}_{\text{CN}})(\text{TCG}) + \text{OTI} - \text{EXEMP} - \text{STDA} + \\ & \text{DIV}_i] \text{USR} - (\text{OTI-EXEMP-STDA} + \text{DIV}_i) \text{USR} \end{aligned} \quad (14.3)$$

where TCG = taxable portion of capital gain (.4 and 1.0 for pre- and post-TRA of 1986 law, respectively.

STDA = the standard deduction of post-TRA of 1986.

As noted in Chapter 2, the standard deduction replaces the zero bracket amounts for taxable years beginning in 1987 and thereafter. Under the assumptions used in this study, a standard deduction of \$3,000 is used.

The total capital gain tax ( $\text{DCGTX}_n$ ) incurred as a result of the disposition of an indirect investment in U.S. agricultural land held by U.S. citizens or resident alien individuals through a domestic corporation consist of the capital gain tax at the corporate and shareholder levels or

$$\text{DCGTX}_n = \text{DCGTX}_{\text{CN}} + \text{DCGTX}_{\text{SN}} \quad (14.4)$$

#### Nonresident Alien Individuals

Generally only the nonresident alien individual's U.S. source income is subject to U.S. taxation. Several factors determine the characterization of the income and the rate at which it is to be taxed. As with the U.S. citizen/resident alien individuals, this study takes into account income taxes incurred by the nonresident alien individual on both direct and indirect investments in U.S. agricultural land. As indicated earlier, the taxation of the nonresident alien individual's direct investment is determined using four alternative assumptions.

Three alternatives are used in the case of indirect investments. The computations which follow are general in nature and must be modified to meet the specific facts and circumstances based upon the assumed home country of the foreign investor.

The global assumption in this study is that investments in U.S. agricultural land are held as passive investments whether direct or indirect. Therefore, rental income earned by the nonresident alien individual is ordinarily classified as Class I income (not effectively connected with the conduct of a U.S. trade or business).

Under the provisions of Code Section 6013(g) a nonresident alien individual who, as of the close of the taxable year, is married to a U.S. citizen or resident may elect to be taxed as a resident of the United States. Once made the election remains in effect unless terminated by the Secretary or the occurrence of one of several events (revocation, death or separation). Throughout this analysis it is assumed that a Section 6013(g) election is not in effect.

The computation of the tax variables specific to nonresident alien investors for direct investments are presented, followed by the computations for indirect investments.

Direct Investments--Rent Tax (DTX<sub>i</sub>). Ordinarily rental income would be taxed at a 30 percent rate (or less if provided in a tax treaty) time the gross income amount. However, the nonresident alien individual may elect to have any income derived from U.S. real property taxed as if such income is effectively connected with the conduct of a U.S. trade or business.<sup>31</sup> In this case the tax base is net income (gross income after allowable deductions including one personal exemption) which is taxed at regular graduated rates for single individuals. The alternative

computation of the rent tax takes into account the existence of the trade or business election.

Assuming that a trade or business election is not in effect, the rent tax for the nonresident alien individual is computed as follows:

$$DTX_i = (GI_i) \cdot 30 \text{ (or lower treaty rate)} \quad (15.1)$$

If a trade or business election is in effect, the rent tax assessed against the nonresident alien individual is computed as follows:

$$DTX_i = (OTI + FTX_i - EXEMP + ZBA)USR - (OTI - EXEMP + ZBA)USR \quad (15.2)$$

where OTI = alternatively, \$60,000, \$20,000 and \$0

EXEMP = one personal exemption amount (\$1,040 for pre-TRA of 1986 and \$2,000 for post-TRA of 1986 law.

ZBA = zero bracket amount for single individual (\$2,480 for 1986 and zero thereafter).

Direct Investments--Capital Gains Tax--DCGTX<sub>n</sub>. For taxable years preceding the enactment of FIRPTA, any capital gains realized on dispositions of investments in U.S. real property by nonresident alien individuals were essentially exempt from U.S. taxation. Two exceptions to this general rule were in effect for (1) nonresident alien individuals violating the length of stay requirement of Code Section 871(a)(2) and (2) nonresident alien individuals making a trade or business election under the provisions of Code Section 871(d) in the absence of an overriding tax treaty provision.<sup>32</sup> In the case of the former, a U.S. capital gain tax of 30 percent was imposed upon the gross amount of the gain or

$$DCGTX_n = (SP - PP) \cdot 30 \quad (16.1)$$

The existence of a trade or business election in the absence of an overriding tax treaty for the pre-FIRPTA period is essentially the same

as for the post-FIRPTA period. In both cases any gains or losses realized from the disposition of a U.S. real property interest are taxed as Class II income. The tax computation in this instance is as follows:

$$\begin{aligned} DCGTX_n = & [(SP - PP)TCG + (OTI + ZBA - EXEMP + FTXI_n)]USR - \\ & (OTI - EXEMP + ZBA + FTXI_n)USR \end{aligned} \quad (16.2)$$

where TCG = taxable portion of capital gain (.4 and 1.0 for pre- and post-TRA of 1986 law) respectively.

Indirect Investments--Rent Tax (DTX<sub>i</sub>). The scenario used for the foreign investor holding an indirect interest in U.S. agricultural land through a domestic corporation parallels the one used for the U.S. investor. The domestic corporation's sole source of income is assumed to be in the form of rents received from U.S. agricultural land investments and the corporation is assumed to be alternatively 100 percent U.S. owned and 100 percent foreign owned. The U.S. taxation implications for the hypothetical domestic corporation used in this study are generally independent of whether it is foreign or U.S. owned. Therefore, the computation of the U.S. rent taxed imposed upon the foreign owned domestic corporation is the same as for the U.S. owned company.

The foreign shareholder is assumed to receive annual dividends to the extent available and declared. Under the provisions of Code Sections 1441(a) and (b), the domestic corporation is required to withhold 30 percent of any dividends to be paid to a nonresident alien individual unless such individual is exempted from withholding requirements. The dividend tax is computed as if it were collected at the shareholder level. Dividends received are taxed as Class I income and are not eligible for the Section 871(d) election;<sup>33</sup> therefore, the computation of

the tax effect on dividends is based upon the gross amount received and is computed as follows for both pre- and post-FIRPTA periods:

$$DTX_i = \text{DIV}(.3) \text{ (or lower treaty amount)} \quad (17)$$

The dividend tax is unaffected by the FIRPTA legislation; therefore, its computation is the same for pre- and post-FIRPTA periods.

Indirect Investments--Capital Gains Tax (DCGTX<sub>n</sub>). Prior to the enactment of FIRPTA nonresident alien individuals were ordinarily exempt from the U.S. capital gain tax. Only in limited circumstances (e.g., violation of the Section 871(a)(2) length of stay requirement) were capital gains of foreigners subject to U.S. taxation. However, even in those instances, a number of tax avoidance techniques (e.g., like-kind exchanges, installment sales, and investment through a United States corporation) were available and used by foreign investors to escape the U.S. capital gain tax. By employing the results of the General Utilities case<sup>34</sup> (referred to as the General Utilities Doctrine), any capital gains realized on the disposition of U.S. real property held indirectly through a domestic corporation could escape U.S. taxation at the corporate level. The domestic corporation could adopt a plan of liquidation, sell all of its property, and distribute the proceeds to its shareholders (including foreign investors) without having to recognize capital gain or other income (except for some recapture--e.g., depreciation).<sup>35</sup> The foreign shareholder's capital gain from the sale of his stock investment was also generally exempt from U.S. taxation. Thus the foreign investor could enjoy profitable investments in U.S. real property without the incurrence of a U.S. tax liability at the corporate and shareholder levels.

While FIRPTA has no effect upon the capital gain recognition rules at the corporate level in the case of a domestic corporation, it pulls



the foreign investor's capital gain from redemption or sale of his stock into the taxation arena in the case of an investment in a domestic corporation which is a United States Real Property Holding Company (USRPHC). The capital gain at the shareholder level is treated as if it were effectively connected with a U.S. trade or business and is, therefore, taxed at regular graduated rates which apply to single individuals.

The General Utilities doctrine was repealed by the TRA of 1986 (Code Sections 311, 336 and 337). As a result, after the transition period, complete liquidations of corporations will not qualify for nonrecognition of gains by the distributing corporation. There are a limited number of exceptions to the repeal of the General Utilities doctrine including (1) distributions of stock or other securities of a controlled subsidiary, (2) certain distributions pursuant to a plan of reorganization, and (3) receipt of appreciated property from a subsidiary by an 80 percent corporate shareholder who receives property with a carryover in basis. The combination effect of the enactment of the FIRPTA legislation and the repeal of the General Utilities doctrine is the taxation of any capital gain realized from investments in U.S. real property through a domestic corporation at the earlier of (1) the sale of the shareholder's interest in the corporation or (2) the liquidation of the corporation followed by distribution to the shareholder.

The nonresident alien individual realizes a capital gain or loss if there is a sale or redemption of his shares in the domestic corporation. For periods prior to the enactment of FIRPTA, any gain or loss realized from such sale or redemption was not considered as U.S. source income and was, therefore, tax exempt unless the length of stay requirement was

violated. If the length of stay requirement was violated any capital gain realized would be taxable U.S. source income and the amount of the U.S. capital gain tax levied against the nonresident alien individual would be computed as follows:

$$DCGTX_{Sn} = (SP-PP-DCGTX_n).3 \text{ (or lesser treaty amount)} \quad (18.1)$$

With the enactment of FIRPTA the sale or redemption of the nonresident alien individual's interest in a USRPHC is generally a taxable event. The analysis in this study is performed assuming that the nonresident alien individual's interest in the USRPHC is redeemed either in exchange for cash from the corporation or the underlying real property in a complete liquidation of the corporation. In the latter case it is assumed that the shareholder immediately sells the U.S. real property at its fair market value which is assumed to be the same as the fair market value of the stock at the redemption date. In either case the computation of the U.S. capital gain tax for pre-TRA of 1986 periods is as follows:

$$DCGTX_{Sn} = [SP-PP+OTI-EXEMP+ZBA-DCGTX_{cn}+DIV_i]USR \\ - (OTI-EXEMP+ZBA+DIV_i)USR \quad (18.2)$$

For taxable years subsequent to 1986 the standard deduction replaces the zero bracket amount. It is assumed that the nonresident alien files as a single individual and, therefore, is not allowed any itemized deductions nor the standard deduction. For post-TRA of 1986 periods, the zero bracket amount variable (ZBA) takes on a value of zero in the computation of the U.S. capital gain tax (DCGTX).

Home Country Taxation of Nonresident Alien Individuals. The calculations presented in this section are very general. Specific calculation of income taxes imposed by the home country of the

nonresident alien individual is dependent upon which foreign country tax system is assumed to apply. The amount of home country taxes will vary depending, in part, upon differences in tax laws and the existence or nonexistence of bilateral tax treaties with the United States and other countries. Specific calculations used to compute the home country tax are presented along with the discussion of the income tax systems of the countries used in this study.

The taxable income of the nonresident alien individual for purposes of home country taxation may consist of (1) rental or dividend income during the life of his investment in U.S. real property, (2) income from sources within his home country, (3) capital gain or loss from the disposition of his interest in U.S. real property, and (4) any related foreign exchange gain or loss. The calculation of the rent/dividend tax imposed upon the nonresident alien individual by his home country is discussed below:

Direct Investments--Rent Tax. The home country tax levied against any foreign source rental income is generally computed as follows:

$$\begin{aligned} \text{FTX}_i &= (\text{OTI} + \text{FTXI}_i + \text{FE}_i) \text{FRS} - \text{DTX}_i \\ &\quad - (\text{OTI}) \text{FRS} \end{aligned} \quad (19)$$

where FRS = the foreign country tax rate schedule.

$\text{FE}_i$  = foreign exchange gain or loss for period  $i$ .

The deduction for host country rent tax ( $\text{DTX}_i$ ) applies if and only if the home country of the foreign investor allows a tax credit for taxes paid to the host country. When allowed, it is generally limited to the amount of home country tax on the foreign source income in question.

Indirect Investments--Dividend Tax. In the case of indirect investments, it is assumed that negative cashflows for any period(s)

during the life of the investments are provided for through corporate borrowings. Therefore, the foreign investor will not be required to make additional investments during the life of the investment. The computation of the home country dividend tax is as follows:

$$FTX_i = (DIV_i + OTI + FE_i)FRS - (OTI)FRS \quad (20)$$

In addition to a rent or dividend tax, the nonresident alien individual may incur a capital gain tax in his home country. If the foreign investor holds a direct investment in U.S. agricultural land, the capital gain tax is likely triggered when the property is sold. The disposal of an indirect investment in U.S. agricultural land held through a U.S. corporation might occur through a redemption of the shareholder's stock in partial or complete liquidation of the corporation or the sale of the stock by the shareholder. For purposes of analysis it is assumed that the disposition occurs in conjunction with a complete liquidation of the corporation. The computation of the income tax imposed by the investor's home country for direct and indirect investments follows.

Direct Investments--Capital Gain Tax. The home country capital gain tax on direct investments is computed as follows:

$$FCGTX_n = [(SP-PP)TCG+OTI+FTXI_i+FEN_n+FE_i]FRS - (OTI+FTXI_i+FE_i)FRS \quad (21)$$

where  $FEN_n$  = foreign exchange gain or loss on of net sales proceeds to the home country.

Indirect Investments--Capital Gain Tax. Taxes levied against the nonresident alien for the foreign source capital gains are determined as follows:

$$FCGTX_n = [(SP-PP)TCG+OTI+DIV_i+FEN_n+FE_i]FRS - (OTI+DIV_i+FE_i)FRS \quad (22)$$

As before, it is assumed that foreign investors holding indirect investments are not required to make additional investments in the U.S. corporation in the event there is negative cashflow for a period(s).

#### Selection of the Home Country of Foreign Investors

The analysis in this study focuses upon hypothetical investments in U.S. agricultural land assumed to have been made by U.S. and foreign individual investors. The ultimate effect of United States taxation of the subject investment made by foreign investors is, in part, dependent upon how, when, and to what extent the investor must bear the burden of multiple taxation. The tax systems of the United States and the foreign investor's home country along with any bilateral tax treaty modifications thereto are the main determinants of the level of taxes assessed given that the income earning event has occurred.

There is great diversity between and among countries relative to how, when, and to what extent income taxes are assessed against citizens, residents, and nonresidents. On one extreme are countries which levy no income taxes against their citizens and residents and have not entered into bilateral tax treaties with other countries. The other extreme is characterized by countries which tax the worldwide income of their citizens and residents. In this study countries representative of the two extremes are used as a basis for analysis and comparison.

The income tax system of Canada is used as a model representative of a foreign country which taxes its citizens and residents on their worldwide income (a global country) and has a tax treaty in effect with the United States. The other extreme (a territorial country) is represented by Saudi Arabia. The overriding reason for choosing these two countries is to depict results which may be obtained in the case of

the previously described extremes. Therefore, the results may not be generalized to other countries not studied except to the extent that their income tax systems are represented by the included countries.

Although not a factor in the selection of the home country of the foreign investor, data on U.S. agricultural land holdings, acquisitions and dispositions are discussed immediately below. This will be followed by a discussion of the two subject countries, their income tax systems, and selected tax treaty provisions.

#### Foreign Investment in U.S. Agricultural Land

Foreign investors owned 12.4 million acres of U.S. agricultural land as of December 31, 1986. This represented slightly less than one percent and one-half of one percent of all privately owned agricultural land and all land in the United States, respectively.<sup>36</sup> The distribution of foreign holdings of U.S. agricultural land by selected countries for the reporting period ended December 31, 1986 is as follows:

#### U.S. AGRICULTURAL LAND HOLDINGS

<u>Country</u>	<u>Percent of Total Foreign-Held Acreage</u>
Canada	18.4%
United Kingdom	31.5
West Germany	9.8
Netherlands Antilles	6.1
Switzerland	4.1
France	3.0
Netherlands	4.1
Mexico	2.4
Saudi Arabia	1.0

The largest single foreign-owned U.S. agricultural land holding (3,531,221 acres or 28 percent) is owned by a U.S. corporation with a more than 50 percent United Kingdom-owned (UK) interest. The remaining UK interests are held by individuals not connected with a U.S. corporation. Foreign persons from Canada and the United Kingdom held a

low of 44 percent and a high of 50 percent of all foreign-held U.S. agricultural land during the period 1981 through 1986 (see Appendix C). Foreign investors from West Germany, the Netherlands Antilles, and Switzerland accounted for 20 percent of all foreign-held U.S. agricultural land in 1986. These five countries (Canada, United Kingdom, West Germany, Netherlands Antilles, and Switzerland) and France accounted for an average of 70 percent of all foreign-held U.S. agricultural land during the six-year period ending with 1986. Investors from each of the remaining countries held less than three percent of all foreign-held U.S. agricultural land during the aforementioned period.

As was noted in Chapter 1, the proportion of foreign-held U.S. agricultural land differs among various regions and states in terms of acreage held, usage, acquisition prices, and rents per acre. The analytical results presented in the succeeding chapter are based on averages for the United States or a portion thereof, whichever is more readily available. Therefore, these results are not necessarily representative of particular states or regions within the United States.

Another aspect of foreign investments in U.S. agricultural land is the distribution of direct and indirect investments through U.S. corporations by countries. Based upon USDA data, the distribution of direct and indirect investments by countries expressed as percentages of each respective category and total foreign investments is as presented in the chart below.<sup>37</sup> The direct category includes all foreign investments flowing from all foreign persons (foreign corporations, individuals, partnerships, etc.) which did not flow through a U.S. corporation. Similarly the indirect investments through U.S. corporations include foreign entities and individuals.

DIRECT AND INDIRECT FOREIGN HOLDINGS OF  
U.S. AGRICULTURAL LAND - 1986

	Direct		Indirect-U.S. Corp.	
	% Total		% Total	
	<u>% Direct</u>	<u>Foreign</u>	<u>% Indirect</u>	<u>Foreign</u>
Canada	29.5	12.5	10.3	5.9
United Kingdom	7.2	3.1	49.7	28.4
West Germany	14.0	6.0	6.7	3.8
Netherlands Antilles	9.9	4.2	3.2	1.9
Switzerland	4.4	1.9	3.9	2.2
France	1.4	0.6	4.3	2.4
Netherlands	2.6	1.4	4.7	2.7
Mexico	4.0	1.7	1.3	0.7
Saudi Arabia	1.0	1.0	1.0	1.0

Distributions for the years 1981 through 1986 are presented in Appendices D (non-U.S. corporate) and E (indirect investments through U.S.

corporations). In this study both direct and indirect investments through a U.S. corporation by individuals are being analyzed. As noted in Chapter 1, indirect foreign investments through U.S. corporations account for the great majority of foreign-held U.S. agricultural land both in terms of number of acres and total land value.

Data classifying foreign investments by characteristics of foreign owners (individuals, corporations, partnerships, etc.) by foreign country are not available. However, USDA reports disclose U.S. agricultural landholdings by type of foreign owner. The distributions for the years 1986 and 1987 were as follows:

U.S. AGRICULTURAL LAND HOLDINGS  
BY TYPE OF FOREIGN OWNERS  
ON DECEMBER 31

	1987		1986	
	<u>Acres</u>	<u>% of Total</u>	<u>Acres</u>	<u>% of Total</u>
Individual	989,390	7.9	979,189	7.9
Corporation	10,058,298	80.2	9,837,539	79.2
Partnership	1,291,562	10.3	1,408,098	11.3
All Others	<u>195,722</u>	<u>1.6</u>	<u>194,171</u>	<u>1.6</u>
Total	<u>12,534,972</u>	<u>100.0</u>	<u>12,418,997</u>	<u>100.0</u>



### Foreign Tax System and Tax Treaty Provisions

As previously indicated (Chapter 2), U.S. income tax provisions applicable to foreign persons are subject to modification by bilateral tax treaties to which the United States is a contracting state. Relevant treaty provisions for this study are those which modify the (1) effective U.S. income tax rates applicable to non-U.S. taxpayers, (2) trade or business election for U.S. tax purposes, and (3) taxation of capital gains. A summary of key tax treaty provisions by selected countries in effect as of December 31, 1986 is presented below:

#### TAX TREATY PROVISIONS

	Withholding Tax Rate on		Annual T or B Election	Taxation of Capital Gains
	<u>Dividends</u>	<u>Rents</u>		
Canada	15	30	No	Yes
United Kingdom	15	30	No	No
West Germany	15	30	Yes	Yes
Netherlands Antilles	15	30	Yes	Yes

Saudi Arabia has not yet entered into a tax treaty agreement with the United States; nor has any of the other major OPEC partner nations. Citizens and residents of nontreaty countries can avail themselves of U.S. tax treaty benefits by investing in the United States through a third treaty country (treaty shopping). However, this requires the use of a foreign corporation. United States taxation of a foreign corporation with U.S. source income is beyond the scope of this study.

#### Selection of Foreign Countries

The two countries chosen for analysis were selected primarily because their income tax systems are characteristic of the two extremes of interest in this study. Canada's income tax system is very similar to that of the United States in that it taxes the worldwide income (including capital gains) of its citizens and residents. A bilateral tax

treaty between the United States and Canada is in effect. The current effective tax treaty is one signed in 1980 and its ratified protocols of 1983 and 1984. Although not a factor in its selection, investors from Canada hold the second largest proportion of foreign-held U.S. agricultural land (18 percent and 19 percent for 1985 and 1986, respectively, down from an average of 30 percent for the previous four years),<sup>38</sup> second only to investors from the United Kingdom. In fact, Canadian investors on average held the largest proportion of foreign-held U.S. agricultural land through 1984. According to one source,<sup>39</sup> "the devaluation of the Canadian dollar to the U.S. dollar" during the early 1980's was partially responsible for the lower level of Canadian investments during the 1980-82 period in comparison with pre-1980 periods.

U.S. agricultural land owned by investors from Saudi Arabia represents less than one percent of foreign-held land in both categories (direct and indirect). But as noted in Chapter 1, an important component of the analysis in this study involves the tax effects on investors from a tax neutral country. Saudi Arabia is such a country.

#### Income Tax Systems of Selected Countries

The research questions posed in Chapter 1 require an analysis of the income tax systems of the subject countries and any tax treaties between them and the United States. The discussion which follows focuses upon the aspects of each country's income tax system that are crucial to the research questions of interest. Following this discussion, descriptions of the relevant foreign country tax variables used in the IRR model are presented.

Canada. Canadian taxes (income, property, sales, excise, etc.) are levied at three levels of government: federal, provincial and local.<sup>40</sup> Income taxes are levied against individuals and corporations at the federal and provincial government levels. Local governmental units do not impose any form of income tax. Individual and corporate income taxes are collected at the federal level except for the province of Quebec in the case of individuals and the provinces of Alberta, Ontario and Quebec in the case of corporations through provincial collection agreements with the federal government. The federal government in turn remits the appropriate amounts to the provinces. Therefore, with the exceptions noted, Canadian taxpayers are only required to file one income tax return for each taxable year. While Canadian income taxes are imposed upon resident and nonresident individuals and corporations, the remainder of this discussion is primarily limited to taxation of foreign source income earned by Canadian resident individuals.

Individuals who are "residents" of Canada are subject to tax on their worldwide income less applicable foreign tax credits. Canadian statutory tax law does not specifically define "resident"<sup>41</sup> individuals, however, individuals are generally considered as residents under the following circumstances:

1. Physical presence in the country for 183 days or more during the taxable year; or
2. Maintenance of a home in and visitation to the country at any time during the year; or
3. Absence from the country for less than two years and previously classified as a resident.

The term "income" is usually used to denote net income in Canadian statutory tax law.<sup>42</sup> Taxable income is equal to the resident's worldwide income, including the taxable portion of any capital gains less deductions. Capital gains and losses include any foreign exchange gains and losses in excess of C\$200<sup>43</sup> per year. The taxable portion of net capital gains is 50 percent. If capital losses exceed capital gains, the capital loss deduction is equal to the amount of capital gains plus C\$2,000. Any excess capital losses may be carried back three years and forward indefinitely for taxable years beginning in 1985.<sup>44</sup>

The applicable federal income tax rate for individuals for 1986 are presented below:

#### CANADIAN FEDERAL INCOME TAXES - INDIVIDUALS

<u>Taxable Income</u> <u>(In C\$'s)</u>	<u>Basic Federal</u> <u>Tax on</u> <u>Lower Amount</u> <u>(In C\$'s)</u>	<u>Rate on</u> <u>Excess Over</u> <u>Lower Amount</u> <u>(%)</u>
0- 1,320	None	6
1,321- 2,638	79	16
2,639- 5,278	290	17
2,280- 7,917	739	18
7,918-13,916	1,214	19
13,197-18,475	2,217	20
18,476-23,754	3,273	23
23,755-36,951	4,487	25
39,952-63,346	7,786	30
63,347 and up	15,705	34

The taxable income amounts for each interval are adjusted each year for inflation. In addition to the federal income taxes based upon the above schedule, residents must pay provincial income taxes which are computed as a surcharge (percentage of the federal tax liability) except for the province of Quebec as noted earlier. Provincial tax rates as a percentage of the federal tax liability vary from 43 percent for the Northwest Territories to 60 percent for Newfoundland or an average of

approximately 50 percent. No assumption is made as to the Province of residence, therefore, the average provincial surtax rate is used.

Residents receiving taxable income from sources outside of Canada receive some relief from double taxation through tax treaty provisions. The Canadian-U.S. tax treaty currently in effect is "Canada-3" which was ratified in August, 1984, and it is generally applicable for periods subsequent to December 31, 1985. The relevant provisions of Canada-3 for purposes of this study are as follows:

1. The withholding rate on nonportfolio dividends and passive rental income received by noncorporate shareholders is 15 percent rather than 30 percent;
2. Capital gains on real estate is taxable in the country in which the real property is situated; and
3. There is no net basis election; however, U.S. statutory law provides for a net basis election for passive rental income from real property investments.

Canadian income taxes resulting from investments in U.S. agricultural land by Canadian resident individuals are computed separately for direct and indirect investments. In both cases the procedures involve the computation of a rent or dividend tax and a capital gains tax. The computations are as follows:

Direct Investments - Rent Tax (FTX<sub>i</sub>). The amount of the rent tax is dependent upon whether there is a positive or negative cashflow. As previously stated, if there is a negative cashflow, any additional funds needed are assumed to be obtained from sources within the United States. Since such borrowings and repayments are denominated in U.S. dollars, there is no foreign exchange gain or loss on such required additional

investments. However, there may be a foreign exchange gain or loss on funds originally invested in U.S. real property as well as annual income that is repatriated to the home country of the foreign investor. The rent tax is computed as follows:

$$\begin{aligned} \text{FTX}_i &= [\text{OTI-EXEMP} + \text{FTX}_{i1} + .5(\text{FE}_i)]\text{CFRS} \\ &\quad - \text{DTX}_i - (\text{OTI-EXEMP})\text{CTRS} \end{aligned} \quad (23)$$

where EXEMP = one personal exemption (C\$4,140 for 1986)

CTRS = Canadian tax rate schedule for individuals.

Direct Investments - Capital Gain Tax (FCGTX<sub>n</sub>). Under Canadian statutory tax law, foreign exchange gains and losses are classified as capital gains and losses, 50 percent of which is subject to taxation. The Canadian capital gain tax on direct U.S. investments is computed as follows:

$$\begin{aligned} \text{FCGTX}_n &= [\text{OTI-EXEMP} + \text{FTX}_{i1} + .5(\text{SP-PP} + \text{FEN}_n + \text{FE}_i)]\text{CTRS} \\ &\quad - \text{DTX}_i - \text{DCGTX}_n \\ &\quad - [(\text{OTI-EXEMP} + \text{FTX}_{i1} + .5(\text{FE}_i))\text{CTRS}] \end{aligned} \quad (24)$$

Indirect Investments - Dividend Tax (FTX<sub>i</sub>). The Canadian income tax on dividends is computed as follows:

$$\begin{aligned} \text{FTX}_i &= [\text{OTI-EXEMP} + \text{DIV}_i + .5(\text{FE}_i)]\text{CTRS} - \text{DTX}_{Si} \\ &\quad - (\text{OTI-EXEMP})\text{CTRS} \end{aligned} \quad (25)$$

Indirect Investments - Capital Gain Tax (FCGTX<sub>n</sub>). The Canadian investor is taxed on any gain or loss realized on dispositions of shares in the U.S. corporation. The capital gain tax is computed as follows:

$$\begin{aligned} \text{FCGTX}_n &= [(\text{OTI-EXEMP} + \text{DIV}_i + .5(\text{SP-PP} + \text{FEN}_n + \text{FE}_i))\text{CTRS} - \text{DCGTX}_{Sn} \\ &\quad - (\text{OTI-EXEMP} + \text{DIV}_i + .5(\text{FE}_i))\text{CTRS}] \end{aligned} \quad (26)$$

Saudi Arabia. Saudi Arabia does not levy an income tax against its citizens nor is it a party to a tax treaty with the United States.

Therefore, applicable taxes for assumed residents of Saudi Arabia are those levied by the United States against such persons having U.S. source income.

## NOTES

<sup>1</sup>Paul F. Wendt and Alan R. Cerf, Real Estate Investment and Taxation (New York: McGraw Hill Book Co., 1969), p. 32.

<sup>2</sup>For example, see Stephen E. Roulac, Modern Real Estate Investment: An Institutional Approach (San Francisco, CA: Property Press, 1976), pp. 360-61.

<sup>3</sup>Ibid., p. 359.

<sup>4</sup>U.S. Department of Agriculture, Agricultural Land Values and Markets: Outlook and Situation Report (Washington, D.C.: U.S. Government Printing Office, June, 1986), Table 12, p. 24. These data consist of prices paid by all purchasers of U.S. agricultural land--both foreign and U.S., individuals, corporations and other entities.

<sup>5</sup>Ibid., p. 6.

<sup>6</sup>U.S. Department of Agriculture, Foreign Ownership of U.S. Agricultural Land Through December 31, 1986 (Washington, D.C.: U.S. Government Printing Office, April, 1987), p. 27.

<sup>7</sup>Rev. Rul. 73-522, 1973-2 C. B. 226.

<sup>8</sup>U.S. Department of Agriculture, Agricultural Resources: Agricultural Land Values and Markets, Situation and Outlook Report (Washington, D. C.: U. S. Government Printing Office, June, 1986), p. 20.

<sup>9</sup>Data on gross rents per acre for U.S. farmlands were only available for 22 states for the periods of interest.

<sup>10</sup>U.S. Department of Agriculture, State Farm Income Statistics (Washington, D. C.: U. S. Government Printing Office, 1980), p. 46.

<sup>11</sup>U.S. Department of Agriculture, Farm Income Data: A Historical Perspective (Washington, D. C.: U. S. Government Printing Office, 1985), p. 25.

<sup>12</sup>U.S. Department of Agriculture, Foreign Ownership of U.S. Agricultural Land Through December 31, 1986, p. 31.

<sup>13</sup>U.S. Department of Agriculture, Agricultural Land Values and Markets: Outlook and Situation Report (Washington, D. C.: U. S. Government Printing Office, August, 1985), p. 3.

<sup>14</sup>U.S. Department of Agriculture, Agricultural Finance: Situation and Outlook Report (Washington, D. C.: U. S. Government Printing Office, March, 1987), p. 67.

<sup>15</sup>U.S. Department of Agriculture, The Current Financial Condition of Farmers and Farm Lenders (Washington, D. C.: U. S. Government Printing Office, March, 1985), p. 3.



<sup>16</sup>The estimated selling expense includes the standard average commission expense of 6% and an additional 4% for closing costs.

<sup>17</sup>I.R.C. Sec. 163(d).

<sup>18</sup>I.R.C. Sec. 469(i).

<sup>19</sup>I.R.C. Sec. 183(d).

<sup>20</sup>I.R.C. Sec. 465.

<sup>21</sup>I.R.C. Sec. 465 (c)(3)(D) of the 1954 Code (hereafter referred to as "prior law"). This section was repealed by the Tax Reform Act of 1986, generally effective for property placed in service after December 31, 1986.

<sup>22</sup>Based upon the description given in I.R.C. Section 1221, the subject investment is a capital asset.

<sup>23</sup>I.R.C. Sec. 1222.

<sup>24</sup>I.R.C. Sec. 163(d)(1).

<sup>25</sup>The recognition of gain or loss for pre-TRA of 1986 periods is governed by I.R.C. Sections 336 and 337 of prior law.

<sup>26</sup>The TRA of 1986 added a new Code Section 337 under which property distributions to a parent in complete liquidation of a subsidiary qualifies for nonrecognition by the distributing corporation. Such distributions are beyond the scope of this study.

<sup>27</sup>I.R.C. Sec. 336.

<sup>28</sup>I.R.C. Sec. 1212(a).

<sup>29</sup>I.R.C. Sec. 331.

<sup>30</sup>I.R.C. Sec. 1001(a).

<sup>31</sup>I.R.C. Sec. 871(d).

<sup>32</sup>For pre-FIRPTA periods, the nonresident alien individual could have avoided the effects of a Section 871(d) election by selling his interest in a year in which no activities were conducted if the Section 871(d) were an annual election.

<sup>33</sup>Tres. Regs. Sec. 1.871-10(b)(2)(ii).

<sup>34</sup>General Utilities & Operating Co. v. Helvering, 296 US 200 (1935).

<sup>35</sup>I.R.C. Sec. 337 (prior law).

<sup>36</sup>U.S. Department of Agriculture, Foreign Ownership of U.S. Agricultural Land Through December 31, 1986 (Washington, D.C.: U.S. Government Printing Office, April, 1987), p. iii.

<sup>37</sup>The definition used by the USDA for direct investments is more inclusive than the one used in this study. However, the results in this study should hold for other direct investments conduits (for example, partnerships, estates, and trusts) used by individuals.

<sup>38</sup>See Appendix C.

<sup>39</sup>U.S. Department of Agriculture, Comparing Distributions of Foreign Investment in U.S. Agricultural Land (Washington, D.C.: U.S. Government Printing Office, September, 1983), p. 17.

<sup>40</sup>Deloitte, Haskins and Sells, Doing Business in Canada: International Tax and Business Service (New York: Deloitte, Haskins and Sells, 1985), Vol. 1, p. 45.

<sup>41</sup>Ibid., p. 112.

<sup>42</sup>Ibid., p. 70.

<sup>43</sup>The "C" appearing before the \$ sign connotes Canadian dollars.

<sup>44</sup>Deloitte, Haskins and Sells, pp. 74-75.

## CHAPTER 4 MODEL APPLICATION

The IRR model described in chapter 3 is used to produce IRRs necessary to answer the research questions of interest. The primary focus is upon the comparative positions of U.S. and selected foreign investors for the pre-FIRPTA period and the post-FIRPTA period given the current U.S. income tax system (post-TRA of 1986). The main objective of the analysis is to ascertain whether or not the FIRPTA legislation brought about a greater degree of horizontal equity between U.S. and foreign investments in U.S. real property. A secondary issue is whether or not the 1986 tax law has made the FIRPTA legislation a moot point. The income tax law changes that were legislated as a part of the Tax Reform Act of 1986 (TRA of 1986), in particular, the reduction in tax rates applicable to U.S. resident taxpayers, were expected to be more advantageous to U.S. taxpayers than to foreign taxpayers and, thereby, minimize the need for the FIRPTA legislation. These issues are analyzed by comparing internal rates of return (IRRs) on assumed investments in U.S. farmland.

### Research Questions

The specific research questions as outlined in Chapter 1 are as follows:

1. In the absence of FIRPTA, did nonresident alien individuals have a comparative advantage over U.S. citizen/resident individuals in the case of investments in U.S. farmland held as

- direct investments and as indirect investments through a U.S. corporation?
2. Did FIRPTA increase the horizontal equity (as defined in Chapter 1) between nonresident alien individuals and U.S. citizen/ resident individuals in the case of investments in U.S. farmland held as direct investments and indirect investments through a U.S. corporation?
  3. In the absence of FIRPTA did nonresident alien individuals have a comparative advantage by holding direct investments in U.S. farmland instead of indirect investments?
  4. Did FIRPTA affect the comparative IRRs on nonresident alien individuals' investments in U.S. farmland held directly and indirectly?
  5. Were citizens/residents of a territorial country more adversely affected by FIRPTA than were citizens/residents of a nonterritorial country in the case of investments in U.S. farmland held directly and indirectly?

Significant changes in U.S. tax laws have occurred since the enactment of FIRPTA, especially with the enactment of the TRA of 1986. While the essential provisions of FIRPTA remain in effect, the extent to which FIRPTA produced more horizontal equity in the taxation of U.S. real property investments might have been minimized or offset by subsequent tax legislation. In light of this, the analysis of FIRPTA's effects on IRRs is made based upon pre- and post-1986 tax law conditions.

#### Use of Model to Answer Research Questions

Results are obtained using values for tax variables based upon provisions in effect under both pre- and post-TRA of 1986 law. The

values used for those tax variables whose values differ for the pre- and post-TRA of 1986 periods are presented in Table 4.1. In addition, different tax rate schedules are applicable to both corporations and individuals under pre- and post-TRA of 1986 law. It is assumed that the individual taxpayer files as a single individual who does not itemize his personal deductions.

Table 4.2 contains a listing of the values assigned to the investment environmental variables. The internal rate of return model presented in Chapter 3 is first run with the values of all of the investment environmental variables set at the initial levels. The primary analysis of all of the research questions is based upon IRRs generated using these values. The alternative values for selected variables are used to test the sensitivity of the results to the values used for the variables. Where applicable, the levels of the variables are changed one at a time while holding the values of all other variables at the original levels. For example, the effect of the level of debt on the IRRs is tested by varying the debt-to-purchase-price ratio using the two additional levels shown, one at a time, while holding the values of all other variables at the original levels. Therefore, any change which occurs will be the result of a change in the level of debt.

The results are expected to be dependent upon the assumed classification of income earned by the foreign investor. Rental income may be taxed as Class I income or Class II income under both pre- and post-FIRPTA laws. Under pre-FIRPTA rules, capital gains were either tax

TABLE 4.1  
VALUATION OF TAX VARIABLES

	<u>Pre-TRA of 1986</u>	<u>Post-TRA of 1986</u>
<u>U.S. Citizen/Resident Individual:</u>		
Personal exemption . . . . .	\$1,040	\$2,000
Taxable portion of capital gain. . . . .	40%	100%
Standard deduction . . . . .	\$2,480	N/A
<u>U.S. Corporation:</u>		
Capital gain rate . . . . .	Lesser of 28% or regular rate	Regular rate
<u>Nonresident Alien Individual:</u>		
Zero bracket amount adjustment . . . . .	\$2,480	N/A
Personal exemption, if applicable . . . . .	\$1,040	\$2,000

TABLE 4.2  
VALUATION OF ENVIRONMENTAL VARIABLES

<u>Variables</u>	<u>Levels of Values Used</u>		
	<u>Initial</u>	<u>1</u>	<u>2</u>
Purchase Price . . . . .	\$628,000	-----	-----
Debt-to-Purchase Price Ratio . . . . .	75%	50%	0%
Interest Rate on Debt . . . . .	10%	12%	8%
Debt Term . . . . .	30 yrs.	20 yrs.	-----
Gross Income (GI) . . . . .	\$ 48,000	-----	-----
Annual GI Growth Rate . . . . .	+2%	-2%	+6%
Operating Expenses (OE). . . . .	\$ 5,500	-----	-----
Annual OE Growth Rate . . . . .	+2%	+5%	-----
Other Taxable Income . . . . .	\$ 60,000	\$20,000	\$ 000
Rate of Farmland Price Change . . . . .	+2%	+5%	+10%
Selling Expense as a % of Selling Price . .	10%	-----	-----
Annual Change in Foreign Exchange Rate . . .	+2%	0	-2%
Dividend Payout Ratio . . . . .	100%	60%	0%
Holding Period . . . . .	10 Yrs.	20 Yrs.	5 Yrs.

exempt or taxed as Class II income assuming the taxpayer did not violate the length of stay requirement. Under FIRPTA capital gains are taxed as Class II income. Any dividend income is taxed as class I income under both pre- and post-FIRPTA laws. Given the alternative tax treatments of rental income and capital gains under pre- and post-FIRPTA, the following tax situations are used in generating the comparative IRRs of foreign investors for direct investments in U.S. agricultural land:

	<u>Tax Situation</u>	<u>Rental Income</u>	<u>Capital Gains</u>
Pre-FIRPTA:	A	Class I	Exempt
	B	Class II	Exempt
<hr/>			
Post-FIRPTA:	C	Class I	Class II
	D	Class II	Class II

The use of the above tax situations for direct investments resulted in 12 different IRRs for each of the foreign countries used in this study--6 each for pre- and post-TRA of 1986 law period--for each level of the environmental variables. Given the levels as specified in Table 4.2, 264 comparative IRRs for each of the two foreign countries or a total of 528 comparative IRRs were produced. In addition, a total of 44 comparative IRRs were produced for the U.S. investor.

The constant assumptions for indirect investments are that rental income at the corporate level is taxed as Class II income and foreign shareholders' dividends are taxed as Class I income under both pre- and post-FIRPTA laws. Differences among the tax situations relate to whether or not the corporation and/or foreign shareholders are subject to the capital gain tax. The taxation of capital gains at the corporate level was not affected by the FIRPTA legislation. However, the corporation,



through the use of Code Sections 336 and 337 of prior tax law, could have avoided the capital gain tax. These avoidance techniques were eliminated by the TRA of 1986. Therefore, it is assumed that capital gains realized by the corporation upon its liquidation are alternatively taxed as trade or business income or are tax exempt. Under the pre-FIRPTA law, foreign shareholders were exempt from the capital gains tax upon the disposition of their interest in a corporation. As mentioned previously, the FIRPTA legislation pulls such gains into the taxation arena. Based upon these facts, the following situations are assumed in generating comparative IRRs for foreign indirect investments in U.S. agricultural land:

	<u>Tax Situation</u>	<u>Corporation Capital Gain</u>	<u>Shareholder</u> <u>Dividend Cap. Gain</u>	
Pre-FIRPTA:	E	Taxed	Class I	Exempt
	F	Exempt	Class I	Exempt
Post-FIRPTA:	G	Taxed	Class I	Class II
	H	Exempt	Class I	Class II

In all of the situations described above, the foreign shareholders' dividend income is taxed as Class I income. Their capital gains are tax exempt under pre-FIRPTA law and are taxed as Class II income under post-FIRPTA law. As mentioned previously, the tax liability of the U.S. investor is not affected by the FIRPTA legislation.

Taking into account the above tax situations for indirect investments resulted an output of 176 comparative IRRs for each of the two foreign countries or a total of 352 comparative IRRs. For each of the 22 runs, three IRRs were produced for the U.S. investor resulting in a total of 66 IRRs.

### Expected Results

Answers to the research questions are based upon IRR comparisons under various alternatives. One of the main arguments in support of the FIRPTA legislation was that the capital gain tax exemption granted on certain foreign interests in U.S. real property gave foreign investors a comparative advantage over similarly situated U.S. investors. It was claimed that such an advantage allowed foreign investors to pay higher prices for U.S. farmland, possibly forcing the U.S. investor out of the market. If this were true, foreign investors paying the same price as U.S. investors would earn a higher rate of return on their investment. Therefore, in the absence of FIRPTA, all other things being equal, except for the different U.S. taxes, potential IRRs for the foreign investor should be greater than IRRs for the U.S. investor.

The analysis is restricted to individual investors holding either direct or indirect interests in U.S. farmland. In the case of foreign investors, two countries (Canada and Saudi Arabia) are used as examples. Canada is used as an example of a nonterritorial taxation foreign country and Saudi Arabia, a territorial (tax neutral) foreign country.

### Research Question 1

Research question 1 involves a comparison between IRRs earned by U.S. investors with IRRs earned by foreign investors under pre-FIRPTA conditions. Expectations are that the IRR for the foreign investor will be greater than the IRR for the U.S. investor, i.e.,

$$(IRR_F - IRR_{US}) > 0.$$

This is due, in part, to the fact that the foreign investor was not subject to the capital gain tax except under certain conditions which were discussed in Chapter 2.

The TRA of 1986 is expected to have had a greater impact upon the effective tax rate of U.S. investors than the effective tax rate of foreign investors holding interest in U.S. farmland not effectively connected with the conduct of a U.S. trade or business. In which case there is expected to be a narrowing of the gap between IRRs earned by foreign investors as compared with U. S. investors under post-TRA of 1986 law. In other words, the following relationship is expected:

$$\underbrace{(\text{IRR}_F - \text{IRR}_{US})}_{\text{Pre-TRA of 1986}} - \underbrace{(\text{IRR}_F - \text{IRR}_{US})}_{\text{Post-TRA of 1986}} > 0.$$

### Research Question 2

If FIRPTA had the desired effect, there will be a reversal of the relationship between IRRs of foreign investors as compared with U.S. investors or, at least, a decrease in the gap between IRRs earned by foreign versus U.S. investors. Presumably, FIRPTA decreased the after-tax cashflow of the foreign investor and, thereby, decreased the after-tax return. Therefore, in general, the expected result for the post-FIRPTA period is that the excess of the IRR for the foreign investor over the IRR for the U.S. investor will be less for the post-FIRPTA period as compared with the pre-FIRPTA period, i.e.,:

$$\underbrace{(\text{IRR}_F - \text{IRR}_{US})}_{\text{Post-FIRPTA}} - \underbrace{(\text{IRR}_F - \text{IRR}_{US})}_{\text{Pre-FIRPTA}} < 0 \text{ or } = 0$$

Analysis of the results entails a comparison of the post-FIRPTA differences between the IRRs of U.S. and foreign investors with the pre-FIRPTA differences. The extent to which this occurs depends upon whether or not the nonresident alien individual is a citizen/resident of a territorial or nonterritorial foreign country. Increases in U. S. income taxes levied against a citizen/resident of a nonterritorial

country may be offset by a reduction in home country income taxes through the use of foreign tax credits, in which case the effects of FIRPTA would be offset or reduced.

In the case of a nonresident alien residing in a territorial country (tax neutral), any increase in U.S. taxes will not be offset by reductions in home country taxes. Therefore, FIRPTA should have resulted in an increase in the overall tax burden of the individual. It is expected that FIRPTA resulted in a reversal of the position of U.S. citizen/resident individuals versus nonresident alien individuals from a territorial foreign country.

#### Research Questions 3 and 4

The after-tax IRR is dependent upon factors other than FIRPTA, including the following:

1. Gross income inclusions and exclusions,
2. Deductible expenditures,
3. Class of income--ordinary or capital gain (pre-TRA of 1986) and Class I or Class II (foreign taxpayers).
4. Availability of foreign tax credits,
5. Existence of bilateral tax treaties and their provisions.
6. Ownership medium used -- direct or indirect.

The relevancy and magnitude of these factors depend upon whether the taxpayer is a U.S. citizen/resident or a nonresident alien and, in the case of a nonresident, whether the individual resides in a treaty country and tax provisions of his home country relating to foreign-source income. The impact of the first five factors enumerated above is taken into account in the model in the computation of values of the tax variables.

Research questions 3 and 4 are designed to address the effect of the ownership form in the case of the nonresident alien individual. As noted in Chapter 1, income earned on investment interests in a domestic corporation is subject to double taxation. All other things being equal, the double taxation is likely to result in a lower rate of return on indirect investments using the corporate form than is the case for interests held directly. It is expected that the after-tax IRR for direct investments is generally greater than the IRR on indirect investments. In other words,

$$IRR_{Direct} - IRR_{Indirect} > 0.$$

While IRRs for direct investments are expected to be greater than IRRs for indirect investments, it is expected that FIRPTA had a greater impact upon direct investments which are not effectively connected with the conduct of a U.S. trade or business. In other words, FIRPTA reduced the gap between the IRRs on direct and indirect investments. The expected relationships between returns on direct and indirect foreign held interests in U.S. farmland under the post-FIRPTA assumption compared with pre-FIRPTA is as follows:

$$\underbrace{(IRR_D - IRR_{ID})}_{\text{Pre-FIRPTA}} - \underbrace{(IRR_D - IRR_{ID})}_{\text{Post-FIRPTA}} > 0 \text{ or } = 0.$$

#### Research Question 5

Given that FIRPTA theoretically increased the effective tax rate of nonresident alien individuals, the expectation is that citizens/residents of a territorial country were more adversely affected by the FIRPTA provisions than were citizens/residents of a nonterritorial country. Therefore, the IRR difference between territorial country citizens/

residents is expected to be greater for the post-FIRPTA period than for the pre-FIRPTA period. In other words,

$$\underbrace{(\text{IRR}_{\text{NT}} - \text{IRR}_{\text{T}})}_{\text{Post-FIRPTA}} > \underbrace{(\text{IRR}_{\text{NT}} - \text{IRR}_{\text{T}})}_{\text{Pre-FIRPTA}}$$

The subscripts "NT" and "T" are used to designate nonterritorial and territorial countries, respectively.

The analyses of the results are presented in the next chapter.

## CHAPTER 5 DATA RESULTS AND ANALYSIS

This chapter contains the results of the data analysis using the model and model application procedures as described in Chapters 3 and 4, respectively. Research questions are analyzed using after-tax internal rates of return (IRRs) under various scenarios to yield results for pre-FIRPTA law, post-FIRPTA law, and comparisons of the two. The results are presented using both pre- and post-TRA of 1986 provisions. Section one presents the results of research question 1. Results for research question two are presented in section two. Section three contains an analysis of the results for research question 3 followed by an analysis of the results for research question 4 in section four. The chapter concludes with a discussion of the results for research question 5. In the analysis of research questions 1, 2 and 5, the results for direct and indirect investments are discussed separately. Research questions 3 and 4 involve a comparison of the two investment media (direct and indirect).

### Research Question 1

Research Question 1 is stated as follows:

In the absence of FIRPTA, did nonresident alien individuals have a comparative advantage over U.S. citizen/resident individuals in the case of investments in U.S. farmland held as a direct investment and as an indirect investment?

The emphasis in the analysis of this question is on the comparative positions of U.S. and foreign investors in the absence of the FIRPTA

legislation. That is, IRRs are generated ignoring the FIRPTA provisions using tax provisions in effect after the expiration of all transition periods under the TRA of 1986 (post-TRA of 1986) and also, using tax provisions in effect prior to the enactment of the TRA of 1986 (pre-TRA of 1986). For the pre-FIRPTA period, the overall impact of U.S. taxes levied against the foreign taxpayer was dependent, in part, upon the classification of his U.S. source income. The interaction of U.S. income tax laws and bilateral income tax treaty provisions makes it possible for foreign taxpayers to have various classifications of rental and capital gain income. The tax situations for the pre-FIRPTA analysis are based upon the income class combinations that could have existed as a result of the interaction of U.S. income tax laws and the bilateral income tax treaty provisions. Results for direct and indirect investments are discussed separately.

#### Direct Investments

In the case of foreign investors holding direct investments in U.S. farmland, results are presented for the following income classes:

	<u>Situation</u>	<u>Rental Income</u>	<u>Capital Gains</u>
Pre-FIRPTA:	A	Class I	Exempt
	B	Class II	Exempt

The results for direct investments are presented in Table 5.1. The primary comparison is between U.S. and foreign investors (Canadian and Saudi Arabian). The IRR comparisons are presented for pre- and post-TRA of 1986 law. The results are designed to show what the relative positions of U.S. and foreign taxpayers would be if the FIRPTA legislation were not in effect with and without the 1986 tax law changes.



It was expected that whether foreign investors had an advantage over U.S. investors was dependent, in part, upon the nature of their home country income tax system and the presence or absence of bilateral income tax treaties with the United States. Therefore, these factors are incorporated into the model variables. Canada and Saudi Arabia are used as examples of a global taxation country (taxes its citizens on their worldwide income) and a territorial taxation country (levies no income taxes on income earned outside its borders), respectively.

Based upon the information presented in Table 5.1, differences between IRRs for U.S. and the selected foreign investors under pre-FIRPTA law are as follows:

			<u>Direct Investments</u> <u>IRRF Minus IRR<sub>US</sub></u>	
<u>Situation</u>	<u>Rental Income</u>	<u>Capital Gain</u>	<u>Country Comparison</u>	
A	Class I	Exempt	Canada-U.S.	Pre-TRA of 1986 5.45
			Saudi Arabia-U.S.	Post-TRA of 1986 -2.01
B	Class II	Exempt	Canada-U.S.	Pre-TRA of 1986 4.02
			Saudi Arabia-U.S.	Post-TRA of 1986 3.91

Results for Saudi Arabian and Canadian investors are discussed below.

Saudi Arabian Investor. Under Situation A (rental income is taxed as Class I income and capital gains are tax exempt), the Saudi Arabian investor's IRR is 2.01 percentage points less than the IRR for the U.S. investor under post-TRA of 1986 law conditions for the pre-FIRPTA period. Although the U.S. investor is subject to the capital gains tax while the Saudi Arabian investor is assumed to be tax exempt, this differential capital gain tax treatment is more than offset by the higher effective U.S. tax imposed upon the rental income of the Saudi Arabian investor.

TABLE 5.1  
DIRECT INVESTMENTS  
AFTER-TAX INTERNAL RATES OF RETURN  
(Classified by Income Class and Home Country)

<u>Situation</u>	<u>Rental Income</u>	<u>Capital Gain</u>	<u>Country</u>	<u>PRE-FIRPTA</u>	
				<u>Pre-TRA of 1986</u>	<u>Post-TRA of 1986</u>
N/A			U.S.	4.81	4.54
A	Class I	Exempt	Canada	9.80	9.99
			Saudi Arabia	2.53	2.53
B	Class II	Exempt	Canada	8.58	8.56
			Saudi Arabia	8.31	8.45

Values used for Investment Environmental Variables:

10% Interest Rate on Debt	\$628,000	Purchase Price
2% Gross Income Growth Rate	48,000	Initial Gross Income
2% Operating Expense Growth Rate	5,500	Initial Operating Expense
2% Farmland Appreciation Rate	60,000	Other Taxable Income
75% Debt/Purchase Price Ratio	40	Debt Term in Years
2% Annual Change in Foreign Exchange Rate	10	Holding Period in Years
100% Dividend Payout Ratio		

All of the gross rental income of the Saudi Arabian investor is taxed at a 30 percent rate whereas, the U.S. investor's rental income is taxed on the net amount after deductions for investment related expenses. In addition, under pre-TRA of 1986 law, the U.S. investor may offset up to \$10,000 of excess interest expense against other taxable income each taxable year and carryover any unused amount to future years.

Varying the values of some of the model variables changed the directional differences between U.S. and Saudi Arabian investors in only two out of sixteen or 12.5 percent of the assumed scenarios under tax situation A (see Column 5, Table F-2 of Appendix F). This occurred when it was assumed that the debt-to-purchase price ratios were alternatively 50 percent and zero. For the Saudi Arabian investor, a decrease in the debt-to-equity ratio results in an increase in the annual cashflow without a change in his tax liability and, thereby, an increase in the after-tax IRR. The U.S. investor likewise experiences an increase in his before tax cashflow but also experiences an increase in his tax liability because of the reduction in deductible expenditures. Therefore, the after-tax cashflow for the U.S. investor increases at a slower rate than the after-tax IRR for the Saudi Arabian investor.

The pre-TRA of 1986 results are not materially different from the results discussed above for the post-TRA of 1986 period. The IRR for the pre-TRA of 1986 period for the U.S. investor is slightly higher than for the post-TRA of 1986 period. The results for the Saudi Arabian investor are the same as for the post-TRA of 1986 period. The TRA of 1986 resulted in an increase in the effective capital gains tax rate but a decrease in overall tax rates. The Saudi Arabian investor is not affected by the TRA of 1986 legislation because it is assumed in

Situation A that any annual income is taxed at a flat 30 percent rate and capital gains are tax exempt. However, the U.S. investor is affected. Given that net investment income was very minor, the increase in the effective capital gains tax caused the post-TRA of 1986 IRRs of the U.S. investor to be lower than the pre-TRA of 1986 IRRs. Therefore, the gap between U.S. and Saudi Arabian investors narrowed for the post-TRA of 1986 period.

In Situation B (rental income taxed as Class II income and capital gains are tax exempt), the results are the opposite of what they were for Situation A. The only difference between the two situations is the taxation of rental income earned by the Saudi Arabian investor. When it is assumed that the rental income earned by the Saudi Arabian investor is taxed as Class II income, the post-TRA of 1986 IRR for the Saudi Arabian investor is 8.45 percent as compared with the 4.54 percent IRR for the U.S. investor. This occurred because the Saudi Arabian investor had a net benefit from the reduced tax rates since it is assumed that he was exempted from the capital gain tax. Clearly, the capital gains tax becomes the major determinant of any IRR differences when it is assumed that rental income for both groups is taxed on the same basis, but one group (U.S. investors) is also taxed on any capital gains while the other group is exempt from the capital gain tax.

Under Situation B, the IRR for the pre-TRA of 1986 period for the Saudi Arabian investor was slightly lower than the post-TRA of 1986 level whereas the opposite result occurred for the U.S. investor. The pre-TRA of 1986 results show a smaller gap between Saudi Arabian and U.S. investors than is the case under post-TRA of 1986 law. In Situation B rental income earned by the Saudi Arabian investor is taxed on the net

amount at regular graduated rates which decreased as a result of the enactment of the TRA of 1986. The Saudi Arabian investor is not affected by the change in taxation of capital gains since it is assumed that any capital gains are tax exempt. Changing the levels of some of the variables did not alter the directional differences between Saudi Arabian and U.S. investors in 94 percent of the scenarios posited under tax Situation B (see Column 5, Table F-4 of Appendix F). The Saudi Arabian investor was only at a disadvantage (lower IRR than the U.S. investor) when it was assumed that there was an annual 2 percent decrease in the foreign exchange rate.

Tax situation B (rental income taxed as Class II income and capital gains tax exempt) was generally not achievable except through the interaction of Code-treaty provisions. Since Saudi Arabia is not a party to a bilateral income tax treaty with the United States, this assumed tax situation was most likely unrealistic in the case of the Saudi Arabian investor unless the monies entered the U.S. through a third country that has a tax treaty with the United States (for example, Netherlands Antilles or British Virgin Islands). Whether and to what extent Saudi Arabian investors take advantage of such avenues is not determinable from available published data.<sup>1</sup> The more likely pre-FIRPTA tax situation for the Saudi Arabian investor is assumed to be situation A; in which case, the U.S. investor would have had the advantage.

Canadian Investor. In the case of assumed Canadian investments, the results for the pre-FIRPTA period (Table 5.1) were as expected under most of the scenarios. Under the assumption that rental income is taxed as Class I income and capital gains are tax exempt (Situation A), the Canadian investor's IRR exceeded the IRR for the U.S. investor by 5.45

percentage points under post-TRA of 1986 conditions. Unlike the Saudi Arabian investor, the Canadian investor's rental income is taxed at a reduced rate of 15 percent as a result of a bilateral income tax treaty between the United States and Canada. Because other taxable income is assumed to be \$60,000, the rental income earned by the U.S. investor is taxed at a 28 percent effective tax rate compared with the 15 percent rate applicable to the Canadian investor. In addition to the reduced rate applicable to annual income, the capital gains earned by the Canadian investor are assumed to be tax exempt in the U.S.; whereas, such gains earned by the U.S. investor are subject to the U.S. capital gains tax.

When it is assumed that Canadian investors' rental income is taxed as Class II and capital gains are tax exempt (Situation B), the IRR for the Canadian investor is less than under Situation A (8.56 percent compared to 9.99 percent). However, it is 4.02 percentage points greater than the IRR for the U.S. investor for the post-TRA of 1986 period. As was the case with Situation A, the difference in the IRRs for Canadian and U.S. investors under Situation B is caused by the different U.S. tax treatment of capital gains (Canadian investor is exempt from the U.S. capital gains tax while the U.S. investor is not).

It should be noted that under both tax situations presented, IRRs for the Canadian investor were slightly higher under post-TRA of 1986 conditions than for pre-TRA of 1986 conditions, while the IRRs for the U.S. investor declined slightly under post-TRA of 1986 conditions. However, the relative positions of the investors are not materially different. The elimination of FIRPTA would leave the Canadian investor

at an advantage vis-a-vis the U.S. investor using IRRs as a measure of advantage.

For both tax situations, the advantage accrues to the Canadian investor in the majority (94 percent) of the scenarios posited for direct investments for the pre-FIRPTA period (see Column 4, Tables F-2 and F-3 of Appendix F). In both tax situations (A and B) the directional differences were the same except in the case of an assumed annual decrease in the value of the Canadian currency under post-TRA of 1986 conditions.

#### Indirect Investments

In the case of the foreign individual investor, results for pre-FIRPTA indirect investments are based upon the assumption that dividend income is taxed as Class I income and capital gains are tax exempt at the shareholder level. The U.S. investor's dividend income and capital gains are taxed at regular graduated rates with the capital gain deduction for the pre-TRA of 1986 period. Rental income earned by the corporation, irrespective of the home country of the owners, is taxed as U.S. trade or business income and capital gains are alternatively treated as trade or business income and as tax exempt. Under all of the scenarios it is assumed that the corporate entity is liquidated at the end of the holding period.<sup>2</sup> Therefore, the corporation incurs a capital gains tax unless its liquidation qualifies for nonrecognition of any gains or losses. For computations under pre-TRA of 1986 law it is assumed alternatively that any capital gains realized by the corporation upon its liquidation are taxed and tax exempt. However, under post-TRA of 1986 law, it is assumed that any capital gains realized by the corporation are subject to the corporate capital gains tax since the TRA

of 1986 essentially eliminated the nonrecognition of income resulting from partial or complete liquidations of the entity through the repeal of Code Sections 336 and 337 and revision of Code Section 311 of prior income tax law. The alternative classifications of the capital gains tax against the corporate level assuming the corporation is liquidated are identified as follows:

Situation E - Capital gains taxed.

Situation F - Capital gains exempt.

The pre-FIRPTA results for indirect investments are presented in Table 5.2. The primary comparison of interest is the IRRs for U.S. investors compared with the IRRs for foreign investors. Two sets of IRRs are presented--pre- and post-TRA of 1986. The purpose for this is to be able to show the effects of the elimination of the FIRPTA legislation with and without the 1986 tax law changes.

Based upon the results presented in Table 5.2, the pre-FIRPTA IRR differences between U.S. and foreign indirect investments in U.S. agricultural land are as follows:

Situation	Corporate Capital Gain	Country Comparison	Indirect Investments	
			IRR <sub>F</sub> Less IRR <sub>US</sub>	
			Pre-TRA of 1986	Post-TRA of 1986
E	Taxed	Saudi Arabia-U.S.	3.74	3.81
		Canada-U.S.	3.27	3.58
F	Exempt	Saudi Arabia-U.S.	3.63	N/A
		Canada-U.S.	3.63	N/A

Saudi Arabian Investor. The post-TRA of 1986 IRRs for the Saudi Arabian investor were 3.81 percentage points higher than those for the U.S. investor under Situation E. There are no comparative results under Situation F for the post-TRA of 1986 period since the ability of the



TABLE 5.2  
INDIRECT INVESTMENTS  
AFTER-TAX INTERNAL RATES OF RETURN  
(Classified by Income Class and Home Country)

<u>Situation<sup>a</sup></u>	<u>Corporate Capital Gain</u>	<u>Country</u>	<u>PRE-FIRPTA<sup>b</sup></u>	
			<u>Pre-TRA of 1986</u>	<u>Post-TRA of 1986</u>
E	Taxed	U.S.	4.60	4.28
		Canada	7.87	7.86
		Saudi Arabia	8.34	8.09
F	Exempt	U.S.	4.82	N/A
		Canada	8.45	N/A
		Saudi Arabia	8.45	N/A

<sup>a</sup>Identifies the taxation of capital gains at the corporate level. For all situations, dividend income is taxed as Class I income and capital gains are tax exempt under the pre-FIRPTA law in the case of foreign shareholders.

<sup>b</sup>Values of the model variables are the same as in Table 5.1 (the original levels).

N/A = Not applicable. The TRA of 1986 severely limited the opportunities for corporations to avoid the taxation of capital gains realized upon the partial or complete liquidation of the corporate entity. Therefore, no results are reported for TRA of 1986 conditions under tax situation F.

corporation to avoid the capital gain tax upon liquidation has been severely limited. The exemption from the capital gains tax at the individual shareholder level is one of the factors contributing to the higher IRR for the Saudi Arabian investor. However, this exemption alone intuitively would not have caused the magnitude of the difference which exists. Included in the assumptions as to variable levels is an increasing foreign exchange rate (2 percent compounded annually). Results obtained using different rates of change in the foreign exchange rate will be discussed later.

The pre-TRA of 1986 results also show higher IRRs for the Saudi Arabian investor. In Situation E, the IRR for the Saudi Arabian investor is 3.74 percentage points higher than the U.S. investor's IRR. As shown in Table 5.2, under Situation F the IRRs for both the Saudi Arabian and U.S. investors are greater than in Situation E (8.45 and 4.60, respectively). However, there was also a wide difference (3.63 percentage points) between the IRRs for the two sets of investors.

Varying the levels of some of the variables (for example, interest rate) did not result in a major change in the overall directional relationship between IRRs for the Saudi Arabian investor and U.S. investors. In fact, this result held for the majority (94 percent) of the scenarios for both the pre- and post-TRA of 1986 periods (see Column 5, Tables G-1 and G-2 of Appendix G).

Canadian Investor. The directional difference between the IRRs for the Canadian and U.S. investors are the same as those between Saudi Arabian and U.S. investors. The IRRs for the Canadian investors are greater than IRRs for U.S. investors though. However, the gap between the IRRs for Canadian and U.S. investors is less than it is between Saudi

Arabian and U.S. investors. The post-TRA of 1986 IRRs decreased slightly from the pre-TRA of 1986 levels for both Canadian and U.S. investors with little or no change in the gap between the two sets of investors. As previously stated, the TRA of 1986 resulted in a reduction in the overall effective income tax rates for the U.S. investor but an increase in the effective capital gains tax rate (from a maximum of 20 percent to a maximum of 28 percent). On the other hand, the Canadian investor, under the assumptions made, was only affected to the extent that the domestic corporation's net tax liability increased under the TRA of 1986 law. These results held true for a majority (94 percent) of the scenarios for which IRRs were determined (see Column 4, Tables G-1 and G-2 of Appendix G).

When it is assumed that there is no change in the foreign exchange rate, the results are materially different in terms of the magnitude of the differences between the IRRs for U.S. and the foreign investors. These results are presented below in Table 5.3. The difference is reduced to 0.52 percentage points in favor of the Saudi Arabian investor and 0.79 percentage points in favor of the Canadian investor under post-TRA of 1986. The pre-TRA of 1986 results assuming no change in the foreign exchange rate are also substantially different from the results obtained using an increasing foreign exchange rate of 2 percent. Therefore, the extent of foreign exchange gains or losses is one of the major factors contributing to a difference in the IRRs of U.S. and foreign investors. This is to be expected since changes in the foreign exchange rate relative to funds flowing into the United States only affects (positively or negatively) the foreign investor.

TABLE 5.3  
INDIRECT INVESTMENTS  
AFTER-TAX INTERNAL RATES OF RETURN  
PRE-FIRPTA AND CONSTANT EXCHANGE RATE<sup>a</sup>  
(Classified by Income Class and Home Country)

<u>Situation</u>	<u>Corporate Capital Gains</u>	<u>Country</u>	<u>Pre-TRA of 1986</u>	<u>Post-TRA of 1986</u>
E	Taxed	U.S.	4.60	4.28
		Canada	4.92	5.07
		Saudi Arabia	4.94	4.80
		Canada-U.S.	0.32	0.79
		Saudi Arabia-U.S.	0.34	0.52
F	Exempt	U.S.	4.82	N/A
		Canada	5.15	N/A
		Saudi Arabia	5.15	N/A
		Canada-U.S.	0.33	N/A
		Saudi Arabia-U.S.	0.33	N/A

<sup>a</sup>All other variable values are set at the original levels.

N/A = Not applicable. The TRA of 1986 severely limited the opportunities for corporations to avoid the taxation of capital gains realized upon the partial or complete liquidation of the corporate entity. Therefore, no results are reported for TRA of 1986 conditions under tax situation F.

The comparative positions of U.S. and foreign investors from the two selected foreign countries for the pre-FIRPTA period differed depending upon the investment medium (direct or indirect), the categorization of rental income, taxation of corporate capital gains, and the home country of the foreign investor. These results are summarized below:

IRR DIFFERENCES			
<u>Post-TRA of 1986</u>		<u>Pre-TRA of 1986</u>	
Canada-	Saudi	Canada-	Saudi
<u>U.S.</u>	<u>Arabia-</u>	<u>U.S.</u>	<u>Arabia-</u>
	<u>U.S.</u>		<u>U.S.</u>

#### Direct Investments:

##### Rental/Capital Gains<sup>a</sup>

Class I/Exempt (Situa. A)	5.45	-2.01	4.99	-2.28
Class II/Exempt (Situa. B)	4.02	3.91	3.77	3.50

<sup>a</sup>Classification of rental income and capital gains

#### Indirect Investments:

Corp. Cap. Gains Taxed	3.58	3.81	3.27	3.63
Corp. Cap. Gains Tax Exempt	N/A	N/A	3.74	3.63

In the case of direct investments, the results for the Saudi Arabian investor were mixed and were highly dependent upon the assumed classification of rental income. The substantial difference between the results for the Saudi Arabian investor for Situations A and B are not FIRPTA related but, rather, caused by the differential tax treatment of rental income. For the more realistic scenario (Situation A), the IRR advantage was clearly with the U.S. investor as compared with the Saudi Arabian investor. On the other hand, the Canadian investor's IRR exceeded the IRR for the U.S. investor under both scenarios used for direct investments.

The two groups of foreign investors had an IRR advantage over the U.S. investors in both of the scenarios used in the case of assumed indirect investments. In addition, the magnitude of the IRR differences

of the foreign investors as compared with the U.S. investor is not materially difference for the Canadian and Saudi Arabian investors. The next research question addresses whether or not the IRR differences changed in direction and/or magnitude.

### Research Question 2

Research Question 2 is stated as follows:

Did FIRPTA increase the horizontal equity between nonresident alien individuals and U.S. citizen/resident alien individuals in the case of investments in U.S. farmland held as a direct investment and as an indirect investment?

Analysis of the results for this question requires a comparison of pre- and post-FIRPTA IRRs. Differences between IRRs for foreign and U.S. investors for pre-FIRPTA are compared with the IRR differences for post-FIRPTA. The results for direct and indirect investments are discussed separately by home country of the foreign investor.

### Direct Investments

The IRRs used in analyzing the results for direct investments are presented in Table 5.4. The possible classification of rental and capital gain income differ for the pre- and post-FIRPTA periods. Therefore, an assessment of the effects of FIRPTA on the IRRs of the different investors involves assumptions about the classification of income in the case of the foreign investor. The possible combinations of income for the pre-FIRPTA period were presented earlier and identified as situations A and B. The likely income classifications for the post-FIRPTA are as follows:

TABLE 5.4  
DIRECT INVESTMENTS  
AFTER-TAX INTERNAL RATES OF RETURN<sup>a</sup>  
(Classified by Income Class and Home Country)

<u>Situation</u>	<u>Rental Income</u>	<u>Capital Gains</u>	<u>Country</u>	<u>Pre-TRA of 1986</u>	<u>Post-TRA of 1986</u>
N/A			U.S.	4.81	4.54

PRE-FIRPTA:

A	Class I	Exempt	Canada	9.80	9.99
			Saudi Arabia	2.53	2.53
B	Class II	Exempt	Canada	8.58	8.56
			Saudi Arabia	8.31	8.45

POST-FIRPTA:

C	Class I	Class II	Canada	9.62	9.50
			Saudi Arabia	2.19	2.00
D	Class II	Class II	Canada	8.37	8.22
			Saudi Arabia	8.10	8.14

<sup>a</sup>Values of the model variables are the same as in Table 5.1.

N/A = Not Applicable

	<u>Situation</u>	<u>Rental Income</u>	<u>Capital Gains</u>
Post-FIRPTA:	C	Class I	Class II
	D	Class II	Class II

Saudi Arabian Investor. Based upon the results shown in Table 5.4, the comparative results showing the percentage point differences between the IRRs for the Saudi Arabian and U.S. investors' direct investments are shown below. The comparisons presented are based upon the post-TRA of 1986 results.

<u>Post-FIRPTA</u>		<u>Pre-FIRPTA</u>		<u>Comparison of Situations</u>	<u>Post- FIRPTA</u>	<u>Pre- FIRPTA</u>
<u>Rents</u>	<u>CG</u>	<u>Rents</u>	<u>CG</u>			
Class I	Class II	Class I	Exempt	C with A	-2.54	-2.01
Class II	Class II	Class I	Exempt	D with A	3.60	-2.01

The post-TRA of 1986 results show, that when it is assumed that rental income earned by the Saudi Arabian investor is taxed as Class I income (Situations A and C), the IRR for the Saudi Arabian investor is less than the IRR for the U.S. investor for both pre- and post-FIRPTA law. This difference widened under post-FIRPTA law as compared with pre-FIRPTA law. FIRPTA actually decreased the horizontal equity between U.S. and Saudi Arabian investors but in favor of the U.S. investor. The opposite result occurs with it is assumed that rental income is taxed differently under pre-FIRPTA law (Class I income) and post-FIRPTA law (Class II income) when the capital gains are tax exempt and taxed as class II income for the pre- and post-FIRPTA periods, respectively. In this instance the advantage shifts from the U.S. investor to the Saudi Arabian investor, or a decrease in horizontal equity occurs. It should be noted that this is not a direct result of FIRPTA but rather, a result of the differential tax effects on rental income. The reduced tax on the



rental income of the Saudi Arabian investor more than offset the imposition of the capital gain tax assuming a U.S. trade or business election were in effect during the post-FIRPTA period but not during the pre-FIRPTA period. It is far more likely that the Saudi Arabian investor would choose to make the Code 871(d) election to treat rental income as income connected with a U.S. trade or business (Class II income) since such an election has no impact upon the taxation of capital gains under post-FIRPTA law. The pre-TRA of 1986 results are not substantially different from the post-TRA of 1986 results and, therefore, are not discussed.

Although results under Situation B for pre-FIRPTA period are presented in Table 5.4 for the Saudi Arabian investor, no comparisons with post-FIRPTA period are presented because, as explained previously, the Saudi Arabian investor generally would not have been able to take advantage of Situation B.

Since U.S. investors are not affected by the FIRPTA legislation, their IRRs are the same for the pre- and post-FIRPTA periods. Therefore, any change in the disparity between the IRRs of U.S. and foreign investors occurs as a result of FIRPTA's effect on the IRR of the foreign investor as long as the same classification is used for the rental income. Under post-FIRPTA rules, any capital gains realized on dispositions of the subject interests are taxed as U.S. trade or business income (net income at regular graduated rates)--Situations C and D. In the case of the Situation A/Situation D comparison, the gap actually widened, or (a decrease in horizontal equity occurred). The reduced tax on the rental income of the Saudi Arabian investor from the lower U.S. tax rates more than offset the imposition of the capital gains tax

assuming a U.S. trade or business election was in effect during the post-FIRPTA period but not in effect during the pre-FIRPTA period.

Canadian Investor. The comparative results showing the percentage point differences between the IRRs for the Canadian and U.S. investors's direct investments under post-TRA of 1986 law are shown below.

Post-FIRPTA		Pre-FIRPTA		Comparison of Situations	IRR <sub>CAN</sub> Post- FIRPTA	- IRR <sub>US</sub> Pre- FIRPTA
Rent	CG	Rent	CG			
Class I	Class II	Class I	Exempt	C with A	4.96	5.45
Class II	Class II	Class I	Exempt	D with A	3.68	5.45
Class I	Class II	Class II	Exempt	C with B	4.96	4.02
Class II	Class II	Class II	Exempt	D with B	3.68	4.02

As shown above the post-FIRPTA IRR differences were generally less than the pre-FIRPTA IRR differences under post-TRA of 1986 law (an increase in the horizontal equity). The gap between Canadian and U.S. investors for income class combinations decreased under FIRPTA with one exception. The one exception occurred when it was assumed that under pre-FIRPTA law rental income was taxed as Class II income and capital gains were exempt from taxation (Situation B) compared with post-FIRPTA assuming rental income was taxed as Class I and capital gains were taxed as Class II income (Situation C). Unlike the Saudi Arabian investor, the Canadian investor's total tax liability consist of U.S. and home country taxes. The pre-FIRPTA/post-FIRPTA comparison using Situations C and B, respectively, would ordinarily show a decrease for post-FIRPTA as compared with pre-FIRPTA considering only the difference in U.S. taxes under the two situations. However, a reduction in U.S. taxes for the Canadian investor does not necessarily result in a reduction in his overall tax liability since his home country assesses taxes on income earned outside of its borders. To the extent that taxes paid to the

United States decrease, home country taxes may increase but not necessarily to the same degree. This is one of the factors contributing to the directional differences between pre-FIRPTA and post-FIRPTA results.

It was expected that the post-FIRPTA IRRs for the Canadian investor would decline from the pre-FIRPTA levels because of the imposition of the U.S. capital gains tax. Since IRRs for the U.S. investor are unaffected by the enactment of the FIRPTA legislation, the post-FIRPTA IRR differences between U.S. and Canadian investors should be less than the pre-FIRPTA IRR differences. This result was achieved largely due to the taxation of capital gains under post-FIRPTA rules whereas it is assumed that capital gains earned by the Canadian investor were tax exempt under pre-FIRPTA rules. It should be noted that even though the disparity between the IRRs for U.S. Canadian investors lessened, the post-FIRPTA IRRs for the Canadian investor were still greater than those for the U.S. investor. Factors other than the differential tax effects are also impacting on the results. The directional change in the foreign exchange rate is one factor which had a substantial impact upon the magnitude and direction of the IRR differences between U.S. and Canadian investors. For example, a decreasing rate of 2 percent resulted in a reversal of the relationship between IRRs for U.S. and Canadian investors (see Column 4, Table F-1 of Appendix F).

The post-FIRPTA results in the case of the classification of both rental income and capital gains as Class II income were obtainable under pre-FIRPTA rules provided the Canadian investor made an election to have the rental income taxed as if it were effectively connected with the conduct of a U.S. trade or business and the election were still in effect

at the time of disposition of the investment. It is presumed that the Canadian investor would, via the use of a bilateral income tax treaty provision, revoke the election in the year of disposition and thereby avoid taxation of any capital gains.

### Indirect Investments

As noted previously, the major difference between the pre- and post-FIRPTA taxation of foreign investments in U.S. farmland held indirectly through ownership in a domestic corporation lies in the taxation of capital gains at the shareholder level. Under pre-FIRPTA law, foreign shareholders were not subject to capital gain taxation on the disposition of their ownership interests. FIRPTA subjects such capital gains to U.S. taxation unless an exception provision is applicable (for example, like-kind exchanges). Therefore, the pre- and post-FIRPTA differences are due mainly to the categorization of capital gains as either tax exempt income or income effectively connected with a U.S. trade or business, respectively, at the shareholder level.

The post-FIRPTA results for indirect investments are presented in Table 5.5. These results are compared with the pre-FIRPTA results presented in Table 5.2 for purposes of analyzing the effects of FIRPTA on indirect investments in U.S. farmland. The FIRPTA effects are discussed separately for each of the subject foreign countries.

Saudi Arabian Investor. The comparative results showing the percentage point differences between the IRRs for Saudi Arabian and U.S. investors' indirect investments are shown below. A negative value indicates that post-FIRPTA IRRs differences (Saudi Arabian investors' IRR less the U.S. investors' IRR) are less than the pre-FIRPTA differences.

TABLE 5.5  
INDIRECT INVESTMENTS  
AFTER-TAX INTERNAL RATES OF RETURN<sup>a</sup>  
(Classified by Income Class and Home Country)

<u>Income Class</u>	<u>Country</u>	POST-FIRPTA	
		<u>Pre-TRA of 1986</u>	<u>Post-TRA of 1986</u>
Situation G (Corp. CG Taxed)	U.S.	4.60	4.28
	Canada	7.42	7.62
	Saudi Arabia	7.10	7.44
	Canada-U.S.	2.82	3.34
	Saudi Arabia-U.S.	2.50	3.16
Situation H (Corp. CG Exempt)	U.S.	4.82	N/A
	Canada	7.96	N/A
	Saudi Arabia	7.25	N/A
	Canada-U.S.	3.14	N/A
	Saudi Arabia-U.S.	2.43	N/A

<sup>a</sup>Values for the model variables are set at the original levels.

N/A = Not applicable. The TRA of 1986 severely limited the opportunities for corporations to avoid the taxation of capital gains realized upon partial or complete liquidation of the entity. Therefore, no results are reported under TRA of 1986 conditions under Situation H.

In other words, FIRPTA narrowed the gap between the IRRs of the two sets of investors.

<u>Indirect Investments</u>	
<u>Post-FIRPTA IRR Difference</u>	
<u>Less Pre-FIRPTA IRR Difference</u>	
<u>Pre-TRA</u>	<u>Post-TRA</u>

Saudi Arabia Versus U.S.:

Situation G (Corp. CG Taxed)	-1.24	-0.65
Situation H (Corp. CG Tax Exempt)	-1.20	N/A

The post-FIRPTA difference between the IRRs earned by Saudi Arabian and U.S. investors declined from the pre-FIRPTA level. This occurred under both pre- and post-TRA of 1986 conditions. The IRRs for the Saudi Arabian investor were greater than the IRRs for the U.S. investor in each of the posited conditions. The negative changes between post-FIRPTA and pre-FIRPTA means that the gap between the IRRs for the two sets of investors narrowed, or there was an increase in the horizontal equity between U.S. and Saudi Arabian investors. Under post-TRA of 1986 rules, the reduction in the disparity between the IRRs of U.S. and Saudi Arabian investors was less than the reduction under pre-TRA of 1986 rules. Therefore, the increase in the horizontal equity between the two groups brought on by FIRPTA was partially nullified by the TRA of 1986. This may be due to the fact that the U.S. investor was affected by both the change in the overall U.S. tax rate as well as the elimination of the capital gain deduction while the foreign taxpayer's annual income is still taxed at the same rate for the post-TRA period.

Canadian Investor. The comparative results showing the differences between the IRRs for Canadian and U.S. investors' indirect investments are shown below. The values represent a comparison of the post-FIRPTA differences between the IRRs for Canadian investors and U.S. investors

with the pre-FIRPTA differences. As noted previously, a negative value means that the disparity between the IRRs for the Canadian investor and the U.S. investor for the post-FIRPTA period is less than the disparity under pre-FIRPTA provisions, or an increase in the horizontal equity between U.S. and Canadian investors occurred.

<u>Indirect Investments</u>	
<u>Post-FIRPTA IRR Difference</u>	
<u>Minus Pre-FIRPTA IRR Difference</u>	
<u>Pre-TRA Law</u>	<u>Post-TRA Law</u>

Canada Versus U.S.:

Situation G (Corp. CG Taxed)	-0.45	-0.24
Situation H (Corp. CG Tax Exempt)	-0.49	N/A

Although the IRRs for the Canadian investor are still greater than the IRRs for the U.S. investor after the enactment of the FIRPTA legislation, the disparity between the two groups of investors decreased, (i.e., the horizontal equity has increased) under both pre- and post-TRA of 1986 conditions. However, the improvement in the horizontal equity between the two groups of investors was less under post-TRA of 1986 law than it was under pre-TRA of 1986 law. The imposition of the capital gains tax on foreign shareholders reduced their IRRs and, thereby reduced, but did not eliminate, the disparity between the U.S. and Canadian investors.

In general, the FIRPTA legislation has resulted in an increase in the horizontal equity between U.S. and both groups of foreign investors studied (Canadian and Saudi Arabian) in the case of direct as well as indirect investments. However, the results for direct investments are dependent upon the assumed classifications of rental income and capital gains for the pre- and post-FIRPTA periods. In addition, the improvement

in the horizontal equity is generally less for the post-TRA of 1986 period than it was for the pre-TRA of 1986 period.

### Research Question 3

Research Question 3 is stated as follows:

In the absence of FIRPTA, did nonresident alien individuals have a comparative advantage by holding direct investments in U.S. farmland instead of indirect investments?

The analysis of this question entails a comparison of pre-FIRPTA IRRs for the foreign investor on direct investments with IRRs on indirect investments. Since rental income may have been taxed as either Class I income (Situation A) or Class II income (Situation B) under pre-FIRPTA rules, analysis of this question includes two possible outcomes based upon the classification of rental income from the point of view of the foreign investor. The classification of rental income and capital gains, respectively, earned on direct investments are identified as follows:

1. Situation A - Class I and exempt.
2. Situation B - Class II and exempt.

For indirect investments, it is assumed that the shareholder was exempt from the capital gain tax and dividend income was taxed as Class I income; the corporation is assumed to have been alternatively subject to (Situation E) and exempt from (Situation F) the capital gain tax.

Results used in making the direct-indirect investment comparisons are presented in Tables 5.1 and 5.2 which were presented earlier. The comparative amounts which are shown below represent the percentage point differences obtained by subtracting the IRRs on indirect investments from the IRRs on direct investments for the various combinations of assumed



income classifications. A negative difference indicates that the IRR for the direct investment is less than the IRR for the indirect investment.

Saudi Arabian Investor. The IRR differences for the direct-indirect investment comparisons are presented below.

<u>Comparison of</u>	<u>Direct Minus Indirect</u>	
	<u>Pre-TRA of 1986</u>	<u>Post-TRA of 1986</u>
1. Direct (Class I/Exempt - A) Versus:		
a. Indirect (Corp. CG Taxed - E)	-5.81	-5.56
b. Indirect (Corp. CG Tax Exempt-F)	-5.92	N/A
2. Direct (Class II/Exempt - B) Versus:		
a. Indirect (Corp. CG Taxed - E)	-0.03	0.36
b. Indirect (Corp. CG Tax Exempt-F)	-0.14	N/A

In the case of the Saudi Arabian investor the IRR for the assumed direct investment was less than the IRR for the assumed indirect investment by substantial amounts when it was assumed that the direct investment was being taxed under Situation A (rental income as Class I and capital gains and tax exempt). In the first instance, the comparison is with indirect investment under Situation E in which the foreign shareholder's dividend income is taxed as Class I income and capital gains are exempt. Although the annual income and capital gains at the individual investor level are being taxed on the same basis for both direct and indirect investments, the taxation of rental income at the corporate level results in the taxation of the net amount (gross rental income after related expenses, including an unlimited interest deduction) at regular graduated corporate rates. At the individual shareholder level dividends represent the net amount after corporate taxes and tend to be a negligible amount. On the other hand, the gross amount of rental income on direct investments is assumed taxed at a 30 percent rate (or a 15 percent treaty amount for the Canadian investor).

When it is assumed that rental income from direct investments is taxed as Class II income (Situation B), the IRR on direct investments is also less than the IRR for indirect investments on two out of the three comparisons made. However, the difference in IRRs for direct and indirect investments is, as expected, much smaller when it is assumed that for direct investments, rental income was taxed as Class II income. In this instance there are only two factors which differ in terms of the overall taxation of income earned via the use of direct investments versus indirect investments. There is a limit to the amount of investment interest which may be deducted in the case of direct investments (net investment income plus \$10,000 or net investment income under pre- and post-TRA of 1986 tax laws, respectively). This limitation does not apply to indirect investments since the rental income is assumed earned by a domestic corporation which is engaged in the conduct of a U.S. trade or business. Additionally, rental income in the case of indirect investments is subject to double taxation.

Canadian Investor. The IRR differences for the direct-indirect investment comparisons are presented below.

<u>Comparison of</u>	<u>Direct Minus Indirect</u>	
	<u>Pre-TRA of 1986</u>	<u>Post-TRA of 1986</u>
1. Direct (Class I/Exempt -A) Versus:		
a. Indirect (Corp. CG Taxed - E)	1.93	2.13
b. Indirect (Corp. CG Exempt - F)	1.35	N/A
2. Direct (Class II/Exempt - B) Versus:		
a. Indirect (Corp. CG Taxed - E)	0.71	0.70
b. Indirect (Corp. CG Exempt - F)	0.13	N/A

The advantage for Canadian investors is with direct investments under both pre- and post-TRA of 1986 conditions. This advantage can be explained by the fact that rental income earned by the Canadian investor

was subject to a reduced rate of 15 percent based upon the U.S.-Canada income tax treaty provisions (a rate lower than the effective rate at which rental income earned through the corporate entity is taxed). The TRA of 1986 did have an effect upon the disparity between IRRs for direct investments and indirect investments. Since the effective tax rates for Class II income were lowered, the advantage accruing to direct investments was reduced but not eliminated after the TRA of 1986 changes.

In general, the results of the direct-indirect comparisons for the pre-FIRPTA period were dependent largely upon the home country of the foreign investor. In the case of the Saudi Arabian investor, the IRR advantage is primarily in favor of indirect investments. For the Canadian investor, the IRR advantage was clearly in favor of direct investments. This suggests that, based solely on the IRR, Saudi Arabian investors would have held indirect interests in U.S. farmland while Canadian investors would have held direct investments prior to the enactment of the FIRPTA legislation. There is insufficient empirical evidence available for the pre-FIRPTA period to verify whether or not actual holdings corresponded with these findings.

#### Research Question 4

Research Question 4 is stated as follows:

Did FIRPTA affect the comparative IRRs on nonresident alien individuals' investments in U.S. farmland held directly and indirectly?

This question is a followup to Research Question 3. The analysis involves a double comparison within and between direct and indirect investments. For each type of assumed investment medium, differences between the IRRs for direct and indirect investments are presented. These differences are then compared to the pre-FIRPTA differences which

were presented earlier (Research Question 3) in order to assess the impact of FIRPTA on the comparative IRRs for direct and indirect investments. The results used in making the direct-indirect investment comparisons are presented in Table 5.4 (presented previously) for direct investments and Table 5.6 (presented below) for indirect investments.

The identification of the assumed tax situations differs for the post-FIRPTA period as compared with the pre-FIRPTA period for both direct and indirect investments. As previously noted the tax situations for direct investments under FIRPTA's provisions differ in terms of the taxation of rental income. Capital gains are taxed as if effectively connected with the conduct of a U.S. trade or business (Class II income) and rental income is assumed to be taxed alternatively as Class I income (Situation C) and Class II income (Situation D). For indirect investments, taxation at the corporate level is the same as under pre-FIRPTA provisions; however, foreign shareholders are no longer exempt from taxation of any capital gains realized on the disposition of their interests in a U.S. real property holding company. The two income classifications used for indirect investments differ only in terms of the assumed taxation of capital gains at the corporate level. In Situation G the corporation is assumed taxed on any capital gains realized on the disposition of its U.S. real property; whereas, in Situation H, it is assumed to be exempt from the capital gain tax. Situation H is a more relevant assumption for the pre-TRA of 1986 period than for the post-TRA of 1986 period since the TRA of 1986 severely limited the opportunities for corporations to avoid the capital gain tax upon liquidation of the entity through the repeal of the nonrecognition provisions that were contained in Code Sections 336 and 337 of prior income tax law.

TABLE 5.6  
INDIRECT INVESTMENTS  
AFTER-TAX INTERNAL RATES OF RETURN  
(Classified by Income Class, Country,  
and Pre- and Post-FIRPTA)<sup>a</sup>

Comparison of Situations <sup>b</sup>	Corporation Capital Gain	Country	Pre-FIRPTA		Post-FIRPTA	
			Pre- TRA	Post- TRA	Pre- TRA	Post- TRA
E and G	Taxed	Canada	7.87	7.86	7.42	7.62
		Saudi Arabia	8.34	8.09	7.10	7.44
F and H	Exempt	Canada	8.45	N/A	7.96	N/A
		Saudi Arabia	8.45	N/A	7.25	N/A

<sup>a</sup>Values of model variables are set at the original levels.

<sup>b</sup>Situations E and F are used to denote taxation of corporate capital gains under pre-FIRPTA law and Situations G and H to denote taxation of capital gains under post-FIRPTA law.

Saudi Arabian Investor. Shown below are the IRR differences for the direct-indirect comparisons under post-FIRPTA rules.

<u>Comparison of</u>	<u>Direct</u>	<u>Minus</u>	<u>Indirect</u>
	<u>Pre-TRA</u>		<u>Post-TRA</u>
	<u>of 1986</u>		<u>of 1986</u>
1. Direct--Class I/Class II (C) versus:			
a. Indirect--Corp. CG Taxed (G)	-4.91		-5.44
b. Indirect--Corp. CG Exempt (H)	-5.06		N/A
2. Direct--Class II/Class II (D) versus:			
a. Indirect--Corp. CG Taxed (G)	1.00		0.70
b. Indirect--Corp. CG Exempt (H)	0.85		N/A

As indicated in the discussion of Research Question 3, the IRRs for direct investments were less than the IRRs for indirect investments in all but one of the four pre-FIRPTA comparisons. For post-FIRPTA periods, there is an even split with the advantage in favor of indirect investments when it is assumed that direct investments are taxed under Situation C (rental income treated as Class I income). This result is similar to the results obtained for pre-FIRPTA periods using a similar assumption (Situation A). In both instances (Situations A and C) rental income earned from direct investments is assumed to be taxed as Class I income and, therefore, the gross amount is taxed at a 30 percent rate (or lower treaty amount). On the other hand, the net rental income earned at the corporate level is taxed at regular graduate corporate rates. The corporation realizes a tax savings during the initial stages of the holding period because operating expenses and interest payments exceed the assumed gross income. FIRPTA affected the magnitude of the comparative IRRs for Situations A and C but not the direction of the differences between the IRRs for direct and indirect investments.

The relationship between the IRRs on direct and indirect investments changes when it is assumed that rental income is taxed as Class II

income. The IRRs on direct investments exceed the IRRs on indirect investments under all of the combinations assuming that rental income earned on direct investments is taxed as Class II income.

Canadian Investor. The IRR differences for the post-FIRPTA period are shown below.

<u>Comparison of</u>	<u>Direct Minus</u>	<u>Indirect</u>
	<u>Pre-TRA</u> <u>of 1986</u>	<u>Post-TRA</u> <u>of 1986</u>
1. Direct--Class I/Class II (C) versus:		
a. Indirect--Corp. CG Taxed (G)	2.20	1.88
b. Indirect--Corp. CG Tax Exempt (H)	1.66	N/A
2. Direct--Class II/Class II (D) versus:		
a. Indirect--Corp. CG Taxed (G)	0.95	0.60
b. Indirect--Corp. CG Tax Exempt	0.41	N/A

The IRRs for direct investments exceeded the IRRs for indirect investments for the post-FIRPTA period. However, the post-TRA of 1986 differences are less than the pre-TRA of 1986 differences but by less than a one-half percentage point. This is the same relationship that existed under pre-FIRPTA law. Therefore, while FIRPTA, for the most part, reduced the IRRs for Canadian investors, it did not change the comparative advantage, vis-a-vis the IRR, held by direct investments. This suggests that, all other things being equal, Canadian investors would prefer to hold interests in U.S. farmland as direct investments rather than indirect. Based upon U.S. Department of Agriculture data as presented in Appendices D and E, available empirical evidence for the post-FIRPTA period is mixed. As shown below, from 1981 through 1984 Canadian indirect investments in U.S. agricultural land expressed as a percentage of total foreign holdings exceeded the direct investments. However, this relationship reversed for the years 1985 and 1986. No

causal link between these data and the results obtained in this study can be extrapolated.

<u>Year</u>	<u>Canadian Investments in U.S. Agricultural Land as a Percentage of Total of Foreign Investments</u>	
	<u>Direct</u>	<u>Indirect</u>
1986	12.5%	5.9%
1985	12.8%	6.2%
1984	12.3%	20.4%
1983	10.7%	14.8%
1982	10.7%	19.7%
1981	10.9%	20.9%

#### Research Question 5

Research Question 5 is stated as follows:

Were citizens of a territorial (tax neutral) country more adversely affected by FIRPTA than were citizens of a nonterritorial country in the case of direct investments in U.S. farmland held directly and indirectly?

This question requires a comparison of the changes in the IRRs occurring under pre- versus post-FIRPTA conditions for each country studied. The objective is to ascertain which group of investors (Canadian or Saudi Arabian) was more adversely affected by the FIRPTA legislation. The question presupposes that both sets of investors experienced reductions in their IRRs as a result of the imposition of the capital gain tax on the subject investments.

Direct Investments. Table 5.7 contains the pre- and post-FIRPTA IRRs along with changes in them categorized based upon assumed tax situations which have been described previously. The impact of FIRPTA is related to the classification of rental and capital gain income as class I, class II or exempt.

IRRs for Canadian investors exceeded the IRRs for Saudi Arabian investors under all assumptions used for both pre- and post-FIRPTA.



However, as shown in Table 5.7, the effect of FIRPTA was more dramatic for the Saudi Arabian investor in several instances than it was for the Canadian investor. In two out of the four comparisons (numbers 1 and 4 in Table 5.7) there was little difference between FIRPTA's effect on the IRRs for investors from the subject countries.

Comparisons 2 and 3 show material differences between FIRPTA's effects on the IRRs of the Canadian and Saudi Arabian investors both in terms of magnitude and direction. In the second comparison (Situations A and D) the IRR for the Saudi Arabian investor increased dramatically while the IRR for the Canadian investor decreased. Pairing Situations A and D results in comparing IRRs produced under two different assumptions as to the taxation of rental income (Class I and Class II, respectively). This is what is driving the positive change in the IRR of the Saudi Arabian investor. In other words, the difference in the taxation of rental income is what is contributing to the results in comparison 2, especially in the case of the Saudi Arabian investor whose gross rental income under pre-FIRPTA law is taxed at a flat 30 percent rate. There is less impact upon the Canadian investor whose gross income under pre-FIRPTA law is taxed a flat 15 percent rate rather than 30 percent. Under Situation A (pre-FIRPTA, comparisons 1 and 2) rental income is taxed on the gross amount at a flat rate of 30 percent. Situation D (post-FIRPTA, comparisons 2 and 4) is based on the assumption that rental income is classified as Class II income and is, therefore, taxed on the net amount at graduated rates. For the Saudi Arabian investor, this results in a greater reduction in U.S. taxes since the rate of taxation in situation A is much higher than the is rate to which the Canadian investor is subject (30 percent versus 15).

TABLE 5.7  
DIRECT INVESTMENTS  
PRE- AND POST-FIRPTA IRR COMPARISONS<sup>a</sup>  
(By Home Country of the Foreign Investor)

<u>Income Classification Comparisons</u>				<u>Post-TRA of 1986 Law</u>		
<u>Post-FIRPTA</u>		<u>Pre-FIRPTA</u>		<u>Pre-</u>	<u>Post-</u>	<u>Increase</u>
<u>Rent</u>	<u>CG</u>	<u>Rent</u>	<u>CG</u>	<u>FIRPTA</u>	<u>FIRPTA</u>	<u>(Decrease)</u>
1. Class I	Class II	Class I	Exempt:			
Canada . . . . .				9.99	9.50	(0.49)
Saudi Arabia . . . . .				2.53	2.00	(0.53)
2. Class II	Class II	Class I	Exempt:			
Canada . . . . .				9.99	8.22	(1.77)
Saudi Arabia . . . . .				2.53	8.14	5.61
3. Class I	Class II	Class II	Exempt:			
Canada . . . . .				8.56	9.50	0.94
Saudi Arabia . . . . .				8.45	2.00	6.45
4. Class II	Class II	Class II	Exempt:			
Canada . . . . .				8.56	8.22	(0.34)
Saudi Arabia . . . . .				8.45	8.14	(0.31)

<sup>a</sup>Values for the model variables are set at the original levels.

The opposite result occurred in comparison 3 in which the rental income/capital gain income classifications are Class II/exempt and Class I/Class II under pre-FIRPTA and post-FIRPTA law, respectively. Since capital gains realized on dispositions of interests in U.S. real property are subject to taxation irrespective of any elections by the foreign taxpayer, it is reasonable to assume that foreign taxpayers would make the trade or business election to have rental income taxed as if it is effectively connected with the conduct of a U.S. trade or business. It follows that the post-FIRPTA classification assumed in comparison 3 is not likely to be encountered.

The results under pre-TRA of 1986 conditions were not materially different from the post-TRA of 1986 results and, therefore, are not presented.

Indirect Investments. The Canadian-Saudi Arabian comparison for indirect investments are presented below.

	<u>Post-TRA</u>		
	<u>Pre-FIRPTA</u>	<u>Post-FIRPTA</u>	<u>Increase (Decrease)</u>
Situation E with G (Corporate Capital Gains Taxed):			
Canada	7.86	7.62	(0.24)
Saudi Arabia	8.09	7.44	(0.65)

The only difference in U.S. taxation of the foreign taxpayer in situations E and G is that capital gains at the shareholder level were tax exempt under pre-FIRPTA law and are taxed as Class II income under post-FIRPTA law. The advantage in the case of indirect investments points toward the Canadian Arabian investor in terms of the absolute decrease in the IRR for the post-FIRPTA period. However, the FIRPTA effects are relatively minor in both cases. The results under pre-TRA of

1986 conditions are not materially different from the post-TRA of 1986 results and, therefore, are not presented.

The comparative effects of FIRPTA on the IRRs of investors from the two countries used are mixed in the case of direct investments. The results are highly dependent upon the assumed classification of rental income. The rate of taxation of rental income classified as Class I income for the Saudi Arabian investor is double the rate for the Canadian investor. This is caused by the absence of a bilateral income tax treaty between the United States and Saudi Arabia. There is very little difference in the effect of FIRPTA on the IRRs of indirect investments held by Canadian and Saudi Arabian investors. This is due mainly to the fact that the only difference in the taxation of the two groups lies in the taxation of dividend income which is a very minor amount throughout the holding period.

## NOTES

<sup>1</sup>Foreign investments in U.S. agricultural land from the Netherlands Antilles and the British Virgin Islands either directly or through U.S. corporations do not represent a major portion of total foreign investments as compared to several other countries (for example, Canada and the United Kingdom). For example, see U.S. Department of Agriculture, Foreign Ownership of U.S. Agricultural Land Through December 31, 1987 (Washington, D.C.: U.S. Government Printing Office, April, 1987), pp. 13-14.

<sup>2</sup>It should be noted that disposition of the shareholders' interest in a U.S. real property holding corporation is not necessarily accompanied by a termination of the entity. In this case the results would differ to the extent of the avoidance of the capital gains tax at the corporate level. In addition, the shareholder may exchange his shares in a tax-free exchange (for example, a Section 351 exchange) which would defer the taxation of any capital gain. However, Section 897(e), enacted as a part of the FIRPTA legislation, overrides nonrecognition provisions of the Code if the result is the avoidance rather than the postponement of the capital gains tax imposed upon foreign taxpayers by FIRPTA.

## CHAPTER 6 SUMMARY AND CONCLUSIONS

Over the years there have been several instances in which the United States tax laws contained provisions which distinguished between the taxation of U.S. citizens/residents and nonresidents. One such distinction related to the taxation of capital gains realized on the disposition of U.S. real property. Prior to the enactment of the Foreign Investment in Real Property Tax Act of 1980 (FIRPTA), foreign taxpayers were generally exempt from U.S. taxation of such capital gains. FIRPTA eliminated the exemption granted foreign taxpayers which resulted in the taxation of such gains as if they are effectively connected with the conduct of a U.S. trade or business.

Since the main impetus for the introduction of the FIRPTA legislation was the presumed advantage accruing to the foreign investor, this study was designed to determine whether or not such an advantage (i.e., a lack of horizontal equity in favor of the foreign investor) existed and, if so, whether or not the FIRPTA legislation resulted in a reversal of or decrease in the advantage. The after-tax internal rate of return (IRR) is used as a proxy for horizontal equity.

### Methodology and Results

An after-tax internal rate of return model was used to generate IRRs for U.S. and foreign investors from selected countries (Canada and Saudi Arabia). These two countries were chosen because they represent the two extremes in terms of home country taxation (a territorial versus a

nonterritorial country) and presence or absence of bilateral income tax agreements (treaties) with the United States. The model was operationalized via the use of a Lotus spreadsheet which, through an iterative process, produced IRRs for the various posited scenarios.

The model variables consist of investment environmental variables and income tax variables (both U.S. and foreign). Values for the investment environmental variables relating to assumed investments in U.S. agricultural land were obtained from published sources; primarily from the U.S. Department of Agriculture's publications. The valuation of the income tax variables was determined based upon (1) the U.S. income tax provisions in effect subsequent to the expiration of all transitional periods under the Tax Reform Act of 1986 (TRA of 1986), (2) the Canadian income tax system (Saudi Arabia does not levy an individual income tax), and (3) relevant provisions of the U.S.-Canadian bilateral income tax treaty. In addition, as an alternative, IRRs were determined under U.S. income provisions that were in effect prior to the enactment of the TRA of 1986.

The main focus of this study is on the comparative effect of the FIRPTA legislation on the after-tax internal rates of return (IRRs) on investments in U.S. real property in general and U.S. agricultural land, in particular. The presumption initially made was that a disparity (lack of horizontal equity) existed between the IRRs accruing to U.S. and foreign investors prior to the enactment of the FIRPTA legislation. If FIRPTA had the expected effect, any disparity which existed will have been eliminated or, at a minimum, have been reduced as a result of the imposition of a tax on capital gains realized by foreign investors on dispositions of their interests in U.S. real property. No attempt was

made to ascertain empirically the actual set of tax attributes which hold for each set of investor groups used. Rather, given the alternatives available under pre- and post-FIRPTA conditions, various scenarios were posited and used to develop IRR comparisons. The comparisons were used to answer the research questions which are discussed below.

#### Research Question 1

The purpose of this research question was to determine whether or not there were disparities between the IRRs earned on direct and indirect investments in U.S. agricultural land held by U.S. investors as compared to foreign investors. The results for Canadian and Saudi Arabian investors were compared with the results for U.S. investors and analyzed separately by home country and investment medium.

Foreign investors' rental income earned from direct investments is ordinarily taxed as Class I income (income not effectively connected with the conduct of a U.S. trade or business). However, the taxpayer may elect to have such income taxed as Class II income (income effectively connected with the conduct of a U.S. trade or business) by making an election under Code Section 871(d). Capital gains realized by foreign investors on dispositions of investments in U.S. real property were generally tax exempt for the pre-FIRPTA period unless the individual violated the length of stay requirement of Code Section (871(a)(2)). The U.S. investor's rental income is taxable at the net amount at regular graduated rates and capital gains are, also, generally taxable.

Direct Investments. Given the two options available to the foreign investor as to the taxation of rental income, IRR comparisons were made under two different assumptions: rental income taxed as Class I income



(Situation A) and rental income taxed as Class II income (Situation B) with capital gains tax exempt in each case.

Saudi Arabian Investor. The results for direct investments were mixed in the case of the Saudi Arabian investor. When it was assumed that the Saudi Arabian investors' rental income was taxed as Class I income, the IRR for the Saudi Arabian (SA) investor was less than the IRR for the U.S. investor. In other words,

$$IRR_{SA} < IRR_{US}.$$

On the other hand, when it was assumed that rental income was taxed as Class II income, the IRR for the Saudi Arabian investor was greater than the IRR for the U.S. investor. In the first case, the Saudi Arabian investor's return is less than the return to the U.S. investor because of the taxation of the Saudi Arabian investor's rental income at the gross amount at a flat 30 percent rate. However, when it is assumed that the Saudi Arabian investor takes advantage of the trade or business election, the reduction in the taxation of rental income results in a reversal of the relative position of the U.S.-Saudi Arabian investor positions

Canadian Investor. The IRR of the Canadian investor was greater than the IRR of the U.S. investor under both tax situations (Situations A and B). Unlike the Saudi Arabian investor, the Canadian investor could take advantage of a bilateral income tax treaty provision which reduces the rate of tax on rental income from 30 percent to 15 percent. This apparently accounts for the difference in the results of the Canadian-U.S. investor comparison as opposed to the Saudi Arabian-U.S. investor comparison.

Indirect Investments. When it was assumed that foreign investors held their interests in U.S. agricultural land indirectly through a

domestic corporation, the results of the foreign-U.S. comparisons were the same for the Saudi Arabian and Canadian investors. The IRRs of the foreign investors exceeded the IRRs of the U.S. investors under all of the assumptions made. The foreign investor was able to benefit from the taxation of net income at regular graduated rates by having the rental income flow through a domestic corporation. In this instance the main difference between the taxation of the foreign investors and U.S. investors was that the foreign investors' capital gain was tax exempt.

### Research Question 2

Having established the relative positions of the U.S. and the selected foreign investors for the pre-FIRPTA period, Research Question 2 was designed to ascertain whether or not the FIRPTA legislation changed the horizontal equity between U.S. and selected foreign investors. The analysis involves a comparison of the pre- and post-FIRPTA IRRs for the sets of investors in order to determine whether or not and how the gap between them had changed.

Direct Investments. Since there were two different combinations of income for both the pre-FIRPTA and post-FIRPTA period, there are four possible comparisons of pre- and post-FIRPTA results.

Saudi Arabian Investor. In the case of the Saudi Arabian investor, the directional differences were basically the same and they were for the pre-FIRPTA comparisons; however, the gap between the foreign investor and the U.S. investor narrowed (an increase in horizontal equity) but was not eliminated, with one exception. The exception occurred when comparing pre-FIRPTA results assuming rental income was taxed as Class I income with post-FIRPTA results assuming rental income was taxed on Class II income. In this instance the assumed taxation of rental income as Class

II income more than offset the additional tax from the taxation of the capital gain under post-FIRPTA law.

Canadian Investor. The Canadian investor's IRRs for the post-FIRPTA period were greater than the U.S. investor's IRRs for both of the tax situations used. However, the gap between the IRRs for the post-FIRPTA period decreased as compared to the pre-FIRPTA differences under the combinations analyzed, with one exception. When it was assumed that rental income for the post-FIRPTA period was taxed as Class I income but taxed as Class II for the pre-FIRPTA period, the gap between the U.S. and Canadian investors' IRRs increased. The combination of taxing rental income as Class I and taxation of the capital gains for post-FIRPTA resulted in an increase in U.S. taxes assessed against the Canadian investor. However, it should be noted that any increase in U.S. taxes assessed against the Canadian investor can be offset by a decrease in taxes paid to the home country of the Canadian investor.

Indirect Investments. As expected, the gap between the IRRs earned by U.S. and the Canadian and Saudi Arabian investors narrowed (an increase in horizontal equity). However, in most of the comparisons the IRRs for the post-FIRPTA period of the foreign investors are still greater than the U.S. investors's IRRs.

### Research Question 3

Research Question 3 involved a comparison of IRRs earned on direct investments with those earned on indirect investments for each of the selected foreign countries for the pre-FIRPTA period. The purpose of this research question was to ascertain whether or not there was a difference in the IRRs earned by foreign investors on their investments in U.S. agricultural land depending upon the investment medium used.

Saudi Arabian Investor. The IRRs for the direct investment was less than the IRRs for the indirect investment for all of the comparisons made. However, the difference was relatively immaterial when it assumed that rental income earned on the direct investment was taxed as Class II income. In this case the main difference between the tax burden of the two media was the difference in the individual and corporate tax rates. Under the assumption that rental income earned from direct investments was taxed as Class I income, there was a wide difference between the IRRs on direct and indirect investments.

Canadian Investor. The IRRs on direct investments exceeded the IRRs on indirect investments under all of the comparisons that were made. Under Situation A for direct investments, the rental income earned by the Canadian investor is taxed at a lower rate than is the case for the Saudi Arabian investor (15 percent versus 30 percent). This may account for the difference in the results obtained for the Canadian investor from the direct-indirect comparison under Situation A.

#### Research Question 4

Research question 4 is a followup to research question 3. The purpose of this research question was to ascertain whether or not the FIRPTA legislation changed the comparative IRRs for direct and indirect investments. It required a comparison of the direct-indirect IRR differences for the post-FIRPTA period with the differences for the pre-FIRPTA period for each of the selected foreign countries.

Saudi Arabian Investor. When it was assumed that rental income earned on direct investments was classified as Class I income, the results of the direct-indirect comparisons were basically the same as for the pre-FIRPTA period (IRRs for direct investments were less than the

IRRs for indirect investments). On the other hand, when it was assumed that rental income on direct investments was classified as Class II income the IRRs on direct investments were greater than the IRRs on indirect investments. The main difference in the taxation of the two investment media in this case lies in the effective tax rates which, in the case of indirect investments, includes double taxation.

Canadian Investor. The results of the direct-indirect investment comparison for the Canadian investor is not materially different from the pre-FIRPTA results. The IRRs for direct investments exceed the IRRs for indirect investments in all of the comparisons that were made.

#### Research Question 5

The purpose of Research Question 5 was to ascertain whether or not FIRPTA had a greater impact upon investors of one foreign country as compared with the other. The analysis was made separately for direct and indirect investments.

Direct Investments. In all but one of the comparisons that were made, FIRPTA resulted in a greater decrease in the IRR of the Saudi Arabian investor than of the Canadian investor. The pre- and post-FIRPTA IRRs for the Canadian investor exceeded the IRRs for the Saudi Arabian investor for all of the combinations that were made. However, when it was assumed that rental earned was taxed as Class I income for pre-FIRPTA and Class II for post-FIRPTA, there was an increase in the IRR of the Saudi Arabian investor while the IRR of the Canadian investor declined. In general, FIRPTA had a more adverse effect upon direct investments made by the Saudi Arabian investor than it did upon direct investments made by the Canadian investor.

Indirect Investments. The decrease in the IRRs on the Saudi Arabian investor's indirect investments was greater than the decrease experienced by the Canadian investor. However, the amount of the difference was immaterial (less than one-half of a percentage point in absolute terms).

#### Limitations

As noted in Chapter 1, the results of the study can not be extrapolated to foreign investors in general. Some of the investment environmental variables as well as tax variables relating to foreign investors from other countries may differ from those of the countries used in this study. Other limitations which must be considered in interpreting the results of this study include (1) the restrictive ownership media used, (2) representativeness (or lack thereof) of the taxpayers' characteristics assumed, (3) exclusion of taxes other than income taxes at the national level, and (4) an assumption of zero transaction costs and equal risks. Each of these is discussed below.

It was assumed in this study that foreign investors' interests in U.S. agricultural land were held by foreign individuals either directly or indirectly through a domestic corporation. Investments through a domestic corporation may be held by foreign individuals or foreign entities (trusts, estates, partnerships or corporations). To the extent that nonresident alien individuals hold their interests in a domestic corporation through a foreign entity, the results for indirect investments can not be extended to all indirect holdings by Canadian and Saudi Arabian investors. In addition, there are opportunities for foreign investors holding indirect interests in U.S. real property through a U.S. corporation to avoid the capital gain tax at the shareholder level under FIRPTA law. For example, a foreign interest of

less than 5 percent in a U.S. corporation whose stock is traded on an established exchange is not subject to the capital gains tax imposed by the FIRPTA legislation. Also, shares in a foreign corporation holding U.S. real property are not considered an interest in U.S. real property for purposes of the application FIRPTA provisions. Therefore, nonresident alien individuals could avoid the capital gains tax at the individual level by holding their interests in U.S. real property through a foreign corporation. However, the foreign corporation would be subject to FIRPTA's provisions. As a result the capital gains realized on the disposition of foreign interests in U.S. real property will, for the most part, be subject to the U.S. capital gains tax regardless of the ownership medium used. There would be a tax advantage to the extent that the net tax liability is lower using one ownership form as compared to another. This could, in turn, lead to a different result in terms of the IRR differences between U.S. and foreign investors.

Changes in ownership structure were not considered in the analysis. It was assumed that the same ownership structure was in effect throughout the holding period. To the extent that changes in the form of ownership of a USRPI have tax implications, the IRRs may be affected. In the case of ownership through a corporation, there may be corporate reorganizations which may be tax-free (for example, reorganizations involving only domestic entities), however, certain corporate reorganizations may trigger gain recognition. For example, an inbound reorganization in which a foreign corporation transfers a USRPI to a newly formed domestic corporation triggers gain recognition under provisions contained in temporary regulations Section 1.897-5(T)(c)(4). However, according to Code Section 358, the foreign shareholder would

generally receive a carryover or substitute basis in his stock of the newly formed domestic corporation. In which case, upon a subsequent disposition of his interest in the domestic corporation (assumed to be a USRPHC), the foreign shareholder would be subject to capital gain taxation on the difference between the fair market value and the carryover or substitute basis. This indirectly results in double taxation of at least part of the appreciation in value of the USRPI.

It was assumed that individual taxpayers file as single individuals and use the standard deduction. While the foreign taxpayer is required to file as a single individual (except one who has a spouse who is a U.S. citizen or resident and who makes the required election), U.S. citizens and residents may use other filing classifications as well as itemize deductions. The expectation is that differing assumptions as to filing status and itemization of personal deductions would tend to favor the U.S. investor. Use of a more favorable filing status for the U.S. individual as compared to a nonresident alien individual would favor the U.S. investor and, thereby, produce different results in terms of the magnitude and/or direction of the IRR differences.

Only income taxes leveled at the national level (if any) for both the United States and the subject foreign countries were considered in the analysis. Lower level governmental units (states, cities, provinces, etc.) may also levy income taxes. To the extent that such taxes differ for U.S. citizens/residents as compared with nonresident alien individuals, the magnitude and/or direction of the results may differ from those obtained in this study. Estate taxes were also ignored. All other things being equal, a nonresident alien individual's estate would incur a higher estate tax than an equally situated estate of a U.S.



person. This is another factor which would change the comparative results for U.S. and foreign investors. The possible exposure to the U.S. estate tax may also be a factor in the selection of an investment medium since generally interests in U.S. real property held directly or through a U.S. corporation would be includible in the estate of a nonresident alien while interests in a foreign corporation generally would not be a part of a nonresident alien individual's taxable estate.

Transaction costs and risks were ignored in the analysis. The results of this study are limited to the extent that the magnitude or degree of these factors differ for U.S. and foreign investors.

#### Conclusions

As noted in chapter one, the methodology used in this study is an adaptation of a model used by O'Dell in his research relating to foreign investments in U.S. farmlands held as direct investments. This study included an analysis of foreign investments in U.S. farmlands held directly and indirectly through a U.S. corporation, using Canadian and Saudi Arabian tax systems to generate values for taxes levied by the home country of the foreign investor.

To a large extent the FIRPTA legislation resulted in an increase in the horizontal equity, or a reduction in the gap between the after-tax internal rates of return accruing to the U.S. and the selected foreign investors. However, as noted in the summaries of the results, there were exceptions especially in the case of direct investments. The results for direct investments were highly dependent upon the assumed classification of rental income for the pre-FIRPTA and post-FIRPTA periods. As shown in Appendix G, these results correspond with the replicated results for

O'Dell's study in terms of the direction of the differences between IRRs for U.S. and the selected foreign investors using the same levels for the investment environmental variables used by O'Dell but using current tax law (Canada and Saudi Arabia were among the countries used in O'Dell's study).

Although the results show a narrowing of the gap between the IRRs of U.S. and selected foreign investors, the results are sensitive to the levels of some of the investment environmental variables. Directionally, changes in the levels of the variables did not impact upon the results in the majority (80 percent and above) of the scenarios used. The consistent exception was the assumed direction of the change in the foreign exchange rate. A decreasing foreign exchange (loss of value to the foreign investor) in many instances resulted in foreign investors having lower IRRs than their U.S. counterparts.

#### Future Research

One extension of this study is to extend the analysis to include foreign holdings in domestic corporations through a foreign corporation. The analysis in this study was based upon comparisons of absolute differences between the various IRRs. As more serial data become available, more powerful results may be obtained through the use of statistical tests of the significance of IRR differences, for example, binomial tests of the significance of the IRR differences.

This study focused upon investors from two foreign countries (Canada and Saudi Arabia). Their selection was based upon the dissimilarities between the income tax systems of Canada and Saudi Arabia and the extent to which residents of those countries can benefit from income tax treaty agreements with the United States. According to U.S. Department of

Agriculture data, interests in U.S. agricultural land held by investors from Canada, the United Kingdom, and West Germany represent about 60 percent of all foreign investments in U.S. land, with residents of the United Kingdom holding over one-half of this amount (see Appendix C). Another extension of this study would be to analyze the impact of FIRPTA on investors from the major investing countries assuming investments are made using the predominant investment medium (indirect investments). The beneficial foreign interests need to be identified in the case of reported indirect holdings.

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APPENDIX A  
DETAILED FORMULAS FOR MAIN AND SUBROUTINES

## A. ENVIRONMENTAL VARIABLES

- (1)  
 $I = PP(1-D/PP)$   
 where  $PP = \$628,000$   
 $D/PP = \text{debt-to-purchase ratio (75\%, 50\%, 0\%)}$
- (2)  
 $GI_i = GI_0(1 + g_1)^i$   
 where  $GI_0 = \text{initial gross income (average for 1986, \$48,000)}$   
 $g_1 = \text{expected annual growth rate (alternatively -2\%, +2\%, +6\%)}$   
 $i = 1, 2, \dots, n$
- (3)  
 $OE_i = OE_0(1 + g_2)^i$   
 where  $OE_0 = \text{initial operating expenses for 1986 (\$5,500)}$   
 $g_2 = \text{annual growth rate (alternatively 2\% and 5\%)}$
- (4)  
 $INT_i = DB_i(\text{Rate})$   
 where  $DB_i = \text{the debt balance at the beginning of period } i$   
 $\text{Rate} = \text{interest rate on debt (alternatively 10\%, 12\%, 8\%)}$
- (5)  
 $PRIN_i = PYMT - INT_i$   
 where  $PYMT = \text{equal annual installment of principal and interest based upon the debt term (alternatively 20 years and 30 years)}$
- (6)  
 $FE_i = NET_i[(1 + ACFER)^i - 1]$   
 where  $NET_i = GI_i - OI_i - PYMT - DTX_i$  (Direct Investments)  
 $NET_i = DIV_i - DIX_{si}$  (Indirect Investments)  
 $ACFER = \text{annual change in the foreign exchange rate relative to the U.S. dollar}$   
 $DTX_{si} = \text{U.S. rent tax at the share holder level}$
- (7)  
 $FEN_n = NET_n[(1 + ACFER)^n - 1]$   
 where  $NET_n = SP_n - DB_n - DCGTX_n - ADLI$  (Direct Investments)  
 $DCGTX_n = \text{U.S. capital gain tax}$   
 $ADLI = \text{additional investments (SUM of negative cashflows for } i = 1, 2, \dots, n)$   
 $NET_n = SP_n - DB_n - DCGTX_{cn} - ADLI - DCGTX_{sn}$  (Indirect Investments)
- (7.2)



## A. ENVIRONMENTAL VARIABLES (Continued)

$$SP = (1 - SE)[PP(1 + g_3)^n] \quad (8)$$

where SE = selling expenses (10% of SP)  
 $g_3$  = annual rate of appreciation (decline) in farmland prices (alternatively -5%, 2%, 5%, and 10%)

$$DB_n = DB_0 - \sum_{i=2}^n PRIN \quad (9)$$

## B. TAX VARIABLES

1. U.S. Taxation of U.S. Citizens/Resident Aliensa. Rent Tax - Direct Investments

$$DTX_i = OTI - EXEMP + FTXI_i \text{USR} - (OTI - EXEMP) \text{USR} \quad (10)$$

where:

OTI = other taxable income (alternatively \$60,000, \$20,000, and \$0)  
 EXEMP = one personal exemption (\$1,040 and \$2,000 for pre- and post-TRA of 1986, respectively)

$FTXI_i$  = farm taxable income ( $GI_i - OE_i - DINT_i$ )

USR = U.S. tax rate for single filing status

$DINT_i$  = deductible interest for period  $i$

For pre-TRA of 1986 = the lesser of

(1)  $GI_i - OE_i + \$10,000$  or

(2)  $INT_i + CARRY_{i-1}$  where  $CARRY_{i-1}$  = cumulative amount of disallowed prior periods [ $\sum (INT - DINT)$  from  $i = 1$  up to  $i-1$ ]

(11.1)

(11.2)

For post-TRA of 1986 = the lesser of

(1)  $GI_i - OE_i$  or

(2)  $INT_i + CARRY_{i-1}$

$CARRY_i = CARRY_{i-1} + INT_i - DINT_i$

(11.3)

(11.4)

## B. TAX VARIABLES (Continued)

b. Capital Gain Tax (DCGTX) - Direct Investments

$$\text{DCGTX}_n = [(\text{SP} - \text{PP}) + \text{OTI} - \text{EXEMP} + \text{FTXI}_i] \text{USR} - (\text{OTI} - \text{EXEMP} + \text{FTXI}_i) \text{USR} \quad (12)$$

where:  
TCG = taxable portion of capital gains (0.4 and 1.0 for pre- and post-TRA of 1986, respectively)

c. Rent Tax - Indirect Investments

$$\text{DTX}_{ci} = (\text{OTI} + \text{FTXI}_{vi}) \text{USR} - (\text{OTI}) \text{USR} \quad (13.1)$$

where:  
 $\text{DTX}_{ci}$  = U.S. rent tax at the corporate level for period i.

$$\text{DTX}_{si} = (\text{OTI} - \text{EXEMP} + \text{DIV}_i) \text{USR} - (\text{OTI} - \text{EXEMP}) \text{USR} \quad (13.2)$$

where:  
 $\text{DTX}_{si}$  = U.S. rent tax at the shareholder level for period i.

$$\text{DIV}_i = (\text{FTXI}_{ci} - \text{DTX}_{ci}) \text{DIVR}_n \quad (13.2a)$$

$$\text{RE}_i = \sum_{i=1}^n (\text{FTXI}_{ci} - \text{DTX}_{ci} - \text{DIV})$$

$$\text{DIV}_n = (\text{FTXI}_n - \text{DTX}_n + \text{RE}_n) \quad (13.2b)$$

$$\text{DTX}_i = \text{DTX}_{ci} + \text{DTX}_{si} \quad (13)$$

d. Capital Gain Tax - Indirect Investments

(1) For Pre-TRA of 1986:

DCGTX<sub>CP</sub> = the lesser of(a)  $(\text{SP} - \text{PP}) \cdot 28$  or(b)  $(\text{SP} - \text{PP} + \text{FTXI}_n + \text{OTI}) \text{USR} - (\text{FTXI}_n + \text{OTI}) \text{USR}$  or(c)  $\text{DCGTX}_n = 0$ 

(14.1a)  
(14.1b)  
(14.1c)

## B. TAX VARIABLES (Continued)

(2) For Post-TRA of 1986:

$$DCGTX_{cn} = [(SP - PP) + OTI + FXTI_n]USR - (OTI + FTXI_n)USR \quad (14.2)$$

(3)  $DCGTX_{sn} = [(SP-PP)TCG + OTI - EXEMP - STDA + DIV_n]USR - (OTI - EXEMP - STDA + DIV_n)USR \quad (14.3)$ 

where:

STDA = standard deduction (\$0 and (3,000 for pre- and post-TRA of 1986, respectively).

$$(4) \quad DCGTX_n = DCGTX_{cn} + DCGTX_{si} \quad (14.4)$$

2. U.S. Taxation of Nonresident Alien Individualsa. Rent Tax - Direct Investments

$$DTX_i = (GI_i) \cdot 30 \text{ (or less if allowed by treaty and rent is Class I income)} \quad (15.1)$$

$$DTX_i = (OTI + FTXI_i - EXEMP + ZBA)USR - (OTI - EXEMP + ZBA)USR \text{ (if rent is Class II income)} \quad (15.2)$$

where: ZBA = \$2,480 and \$0 for pre- and post-TRA of 1986, respectively

b. Capital Gain Tax - Direct Investments

$$DCGTX_n = (SP - PP) \cdot 30 \text{ (or lower treaty amount and if Class I income)} \quad (16.1)$$

$$DCGTX_n = [(SP - PP)TCG + OTI + ZBA - EXEMP + FTXI_n]USR - (OTI - EXEMP + ZBA + FTXI_n)USR \quad (16.2)$$

(NOTE: THE TOTAL TAXES LEVIED IN THE CASE OF INDIRECT INVESTMENTS CONSIST OF TAXES IMPOSED AGAINST THE CORPORATION AS WELL AS THE SHAREHOLDER. U.S. TAXES IMPOSED AGAINST THE DOMESTIC CORPORATION ASSUMED TO BE OWNED BY NONRESIDENT ALIEN INDIVIDUALS ARE COMPUTED AS SHOWN IN EQUATIONS 12.1, 13.1a, 13.1b, 13.1c, AND 13.2. BELOW ARE COMPUTATIONS RELATING TO U.S. TAXES IMPOSED AGAINST THE NONRESIDENT ALIEN INDIVIDUAL.)

## B. TAX VARIABLES (Continued)

### c. Rent Tax - Indirect Investments

$$DTX_i = DIV_i(.30) \text{ (or a lesser treaty amount)} \quad (17)$$

### d. Capital Gain Tax - Indirect Investments

$$DCGTX_n = (SP - PP) \cdot 30 \text{ (or a lesser treaty amount for the pre-FIRPTA period)} \quad (18.1)$$

$$DCGTX_n = (SP - PP + OTI - EXEMP + ZBA + DIV_n)USR - (OTI - EXEMP + ZBA + DIV_n)USR \text{ (for Post-FIRPTA)} \quad (18.2)$$

## 3. Canadian Taxation of Canadian Residents with Investments in the U.S.

### a. Rent Tax - Direct Investments

$$FTX_i = [OTI - EXEMP + FTXI_i + .5(FE_i)]CTRS - DTX_i - (OTI - EXEMP)CTRS \quad (23)$$

where: EXEMP = \$4,140 (Canadian dollars)

### b. Capital Gain Tax - Direct Investments

$$FCGTX_n = [OTI - EXEMP + FTXI_n + .5(SP - PP + FEN_n + FE_1)]CTRS - DTX_i - DCGTX_n - [OTI - EXEMP + FTXI_i + .5(FE_i)]CTRS \quad (24)$$

### c. Rent Tax - Indirect Investments

$$FTX_i = [OTI - EXEMP + DIV_i + .5(FE_i)]CTRS - [OTI - EXEMP + .5(FE_i)]CTRS \quad (25)$$

### d. Capital Gain Tax - Indirect Investments

$$FCGTX_n = [OTI - EXEMP + DIV_i + .5(SP - PP + FEN_n + FE_i)]CTRS - [OTI - EXEMP + DIV_i + .5(FE_i)]CTRS \quad (26)$$

# APPENDIX B

## FOREIGN-HELD U.S. AGRICULTURAL LAND GROSS RENTS PER ACRE AND TOTAL ACREAGE BY SELECTED STATES

		1966	1965	1964	1963	1962	1961	1960	1959	1958	1957
New Jersey:	Rent P/Acre	\$ 44.63	\$ 41.68	\$ 54.30	\$ 51.50	\$ 44.10	\$ 37.40	\$ 35.80	\$ 31.60	\$ 27.30	\$ 31.60
	Acres (000s)	970	970	1,030	1,030	1,000	1,020	1,030	1,040	1,000	1,000
Pennsylvania:	Rent P/Acre	\$ 35.83	\$ 35.83	\$ 38.82	\$ 39.30	\$ 27.60	\$ 15.20	\$ 31.20	\$ 29.40	\$ 27.80	\$ 25.70
	Acres (000s)	8,701	8,701	8,700	8,700	8,800	9,000	9,000	9,000	9,000	9,000
Delaware:	Rent P/Acre	\$ 64.02	\$ 63.26	\$ 65.22	\$ 57.30	\$ 57.50	\$ 57.10	\$ 49.60	\$ 41.70	\$ 41.40	\$ 36.20
	Acres (000s)	660	660	650	650	660	650	650	660	665	670
Maryland:	Rent P/Acre	\$ 52.46	\$ 57.51	\$ 57.15	\$ 52.70	\$ 47.40	\$ 43.60	\$ 40.20	\$ 37.10	\$ 27.10	\$ 26.80
	Acres (000s)	2,700	2,700	2,700	2,700	2,750	2,800	2,750	2,700	2,650	2,650
Michigan:	Rent P/Acre	\$ 43.87	\$ 46.05	\$ 47.72	\$ 51.70	\$ 50.20	\$ 51.00	\$ 46.40	\$ 40.00	\$ 37.40	\$ 35.80
	Acres (000s)	11,397	11,397	11,400	11,400	11,400	11,400	11,400	11,400	11,400	11,400
Wisconsin:	Rent P/Acre	\$ 43.69	\$ 53.24	\$ 54.14	\$ 56.60	\$ 53.30	\$ 49.10	\$ 45.00	\$ 42.00	\$ 39.60	\$ 36.50
	Acres (000s)	18,009	18,009	18,003	18,200	18,500	18,600	18,600	18,700	18,800	18,900
Minnesota:	Rent P/Acre	\$ 52.85	\$ 60.04	\$ 64.15	\$ 68.10	\$ 68.30	\$ 63.30	\$ 59.50	\$ 53.80	\$ 48.50	\$ 47.30
	Acres (000s)	30,416	30,416	30,400	30,400	30,400	30,000	30,000	30,000	30,000	30,100
Dhle:	Rent P/Acre	\$ 65.88	\$ 72.18	\$ 71.78	\$ 77.80	\$ 80.80	\$ 78.60	\$ 72.00	\$ 69.00	\$ 59.60	\$ 53.00
	Acres (000s)	15,802	15,802	15,798	16,100	16,200	16,300	16,300	16,300	16,300	16,400
Indiana:	Rent P/Acre	\$ 83.06	\$ 92.70	\$ 91.60	\$ 94.80	\$ 98.70	\$ 101.00	\$ 94.00	\$ 85.00	\$ 80.10	\$ 78.00
	Acres (000s)	16,403	16,403	16,400	16,800	16,900	16,800	16,800	16,900	16,900	16,900
Illinois:	Rent P/Acre	\$ 100.07	\$ 103.78	\$ 119.95	\$ 111.40	\$ 112.80	\$ 105.80	\$ 99.00	\$ 92.00	\$ 85.00	\$ 81.00
	Acres (000s)	28,704	28,704	28,700	28,700	28,700	28,800	28,800	28,800	28,800	28,900
Iowa:	Rent P/Acre	\$ 82.98	\$ 88.40	\$ 109.17	\$ 105.60	\$ 106.10	\$ 101.80	\$ 96.00	\$ 89.00	\$ 82.00	\$ 78.00
	Acres (000s)	33,604	33,604	33,700	33,700	33,800	33,800	33,800	33,800	33,800	33,800
Missouri:	Rent P/Acre	\$ 42.08	\$ 46.42	\$ 52.53	\$ 49.40	\$ 52.70	\$ 52.90	\$ 50.50	\$ 44.30	\$ 40.00	\$ 36.30
	Acres (000s)	31,006	31,006	31,000	31,400	31,400	31,500	31,500	31,500	31,500	31,700
North Dakota:	Rent P/Acre	\$ 26.89	\$ 25.68	\$ 27.30	\$ 26.90	\$ 27.30	\$ 25.50	\$ 24.10	\$ 22.40	\$ 19.70	\$ 20.10
	Acres (000s)	40,997	40,997	41,000	41,700	41,700	41,700	41,700	41,700	41,700	41,800
Virginia:	Rent P/Acre	\$ 30.23	\$ 29.42	\$ 33.33	\$ 33.80	\$ 36.40	\$ 31.10	\$ 27.80	\$ 26.00	\$ 28.70	\$ 31.40
	Acres (000s)	9,704	9,704	9,700	9,800	9,800	9,800	9,800	9,800	9,800	9,900
North Carolina:	Rent P/Acre	\$ 35.63	\$ 45.82	\$ 39.57	\$ 40.60	\$ 39.40	\$ 37.80	\$ 32.90	\$ 34.40	\$ 28.50	\$ 31.70
	Acres (000s)	10,990	10,990	10,998	10,800	11,100	11,700	11,700	11,700	11,800	12,000
Kentucky:	Rent P/Acre	\$ 45.96	\$ 42.04	\$ 47.11	\$ 49.70	\$ 52.30	\$ 48.00	\$ 45.80	\$ 40.10	\$ 38.00	\$ 39.30
	Acres (000s)	14,506	14,506	14,500	14,500	14,500	14,500	14,600	14,700	14,800	14,700
Tennessee:	Rent P/Acre	\$ 41.15	\$ 35.41	\$ 44.21	\$ 40.50	\$ 45.00	\$ 43.80	\$ 41.00	\$ 37.00	\$ 36.60	\$ 32.50
	Acres (000s)	13,397	13,397	13,400	13,400	13,400	13,600	13,600	13,700	13,800	13,800
South Carolina:	Rent P/Acre	\$ 22.10	\$ 24.74	\$ 26.32	\$ 26.60	\$ 25.80	\$ 27.00	\$ 24.40	\$ 23.70	\$ 21.20	\$ 20.30
	Acres (000s)	5,602	5,602	5,600	5,900	6,100	6,400	6,500	6,500	6,500	6,600
Georgia:	Rent P/Acre	\$ 25.42	\$ 28.32	\$ 28.90	\$ 30.40	\$ 29.90	\$ 32.40	\$ 30.70	\$ 29.40	\$ 29.20	\$ 28.30
	Acres (000s)	13,498	13,498	13,507	15,000	15,200	15,500	15,500	15,300	15,000	15,000
Alabama:	Rent P/Acre	\$ 24.65	\$ 27.06	\$ 24.32	\$ 30.40	\$ 30.10	\$ 29.00	\$ 28.30	\$ 25.60	\$ 23.50	\$ 15.70
	Acres (000s)	11,500	11,500	11,507	12,100	12,300	12,400	12,700	12,700	12,900	12,800
Mississippi:	Rent P/Acre	\$ 28.48	\$ 37.23	\$ 35.34	\$ 34.70	\$ 39.10	\$ 37.00	\$ 34.90	\$ 30.50	\$ 28.00	\$ 19.30
	Acres (000s)	14,207	14,207	14,200	14,300	14,500	14,600	14,600	14,700	14,700	15,000

Source: USDA, Farm Income Data: A Historical Perspective (Washington, D.C.: U.S. Government Printing Office, 1980, 1981, 1982, 1983, 1984, 1985, 1986).

## APPENDIX C

FOREIGN HOLDINGS OF U.S. AGRICULTURAL LAND BY COUNTRY  
(PERCENTAGE OF TOTAL FOREIGN HOLDINGS)  
(DIRECT AND INDIRECT HOLDINGS)

	<u>1986</u>	<u>1985</u>	<u>1985</u>	<u>1983</u>	<u>1982</u>	<u>1981</u>
Canada	18.4%	19.0%	32.7%	25.5%	30.4%	31.8%
United Kingdom	31.5%	29.8%	13.8%	14.0%	14.0%	14.0%
West Germany	9.8%	10.7%	8.6%	8.7%	8.6%	8.2%
Netherland Antilles	6.1%	6.5%	5.6%	5.6%	6.8%	7.7%
Switzerland	4.1%	4.5%	3.3%	3.2%	3.2%	2.7%
France	3.0%	3.6%	3.3%	3.4%	2.3%	16.5%
Netherlands	4.1%	3.8%	3.4%	3.5%	2.7%	2.7%
Mexico	2.4%	1.8%	1.5%	4.1%	1.6%	1.6%
Luxembourg	1.0%	2.0%	1.8%	0.9%	2.8%	1.9%
Hong Kong	<1%	<1%	13.1%	13.6%	13.9%	2.4%
Panama	2.0%	1.5%	1.3%	1.2%	1.1%	1%
Japan	1.1%	0.9%	0.8%	0.8%	0.8%	1.9%
Saudi Arabia	<1%	<1%	<1%	<1%	<1%	<1%

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Source: U.S. Department of Agriculture, Foreign Ownership of U.S. Agricultural Land Through December 31, 1986 (Washington, D.C.: U.S. Government Printing Office, April, 1987).

## APPENDIX D

FOREIGN INVESTMENTS IN U.S. AGRICULTURAL LAND  
(DIRECT INVESTMENTS AS PERCENTAGES OF TOTAL DIRECT  
AND TOTAL FOREIGN HOLDINGS)

	1986		1985		1984		1983		1982		1981	
	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total	Direct	Total
Canada	29.2%	12.5%	29%	12.8%	32.8%	12.3%	29%	10.7%	29.4%	10.7%	30.4%	10.9%
United Kingdom	7.2	3.1	7.8	3.4	7.4	2.8	7.9	2.9	7.7	2.8	7.2	2.6
West Germany	14.0	6.0	15.2	6.7	13.8	5.2	13.9	5.1	13.7	5.0	13.3	4.8
Netherland Antilles	9.9	4.2	10.6	4.5	10.3	3.9	10.6	3.9	10.8	4.0	11.6	4.1
Switzerland	4.4	1.9	4.9	2.2	4.9	1.9	4.9	1.8	4.8	1.8	4.0	1.4
France	1.4	0.6	<1%	<1%	3.7	2.3	3.8	2.4	3.6	2.3	24.2	15.5
Netherlands	2.6	1.4	2.5	1.1	2.8	1.0	2.7	1.0	2.8	1.0	2.8	1.0
Mexico	4.0	1.7	4.0	1.8	4.1	1.5	4.2	1.6	4.3	1.6	4.5	1.6
Luxembourg	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Hong Kong	1%	1%	1%	1%	1%	1%	3.5	1.3	3.6	1.3	3.9	1.4
Panama	3.5	1.5	3.4	1.5	3.4	1.3	3.1	1.2	3.0	1.1	<1%	<1%
Japan	2.1	0.9	2.1	0.9	2.1	0.8	2.2	0.8	2.2	0.8	2.5	0.9
Saudi Arabia	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%

Source: U.S. Department of Agriculture, Foreign Ownership of U.S. Agricultural Land Through December 31, 1986 (Washington, D.C.: U.S. Government Printing Office, April 1987).



APPENDIX E

FOREIGN INVESTMENTS IN U.S. AGRICULTURAL LAND  
(INDIRECT INVESTMENTS AS PERCENTAGES OF TOTAL DIRECT  
AND TOTAL FOREIGN HOLDINGS)

	1986		1985		1984		1983		1982		1981	
	Indirect	Total	Indirect	Total	Indirect	Total	Indirect	Total	Indirect	Total	Indirect	Total
Canada	29.2%	12.5%	29%	12.8%	32.8%	12.3%	29%	10.7%	29.4\$	10.7%	30.4%	
United Kingdom	7.2	3.1	7.8	3.4	7.4	2.8	7.9	2.9	7.7	2.8	7.2	2.6
West Germany	14.0	6.0	15.2	6.7	13.8	5.2	13.9	5.1	13.7	5.0	13.3	4.8
Netherlands	9.9	4.2	10.6	4.5	10.3	3.9	10.6	3.9	10.8	4.0	11.6	4.1
Switzerland	4.4	1.9	4.9	2.2	4.9	1.9	4.9	1.8	4.8	1.8	4.0	1.4
France	1.4	0.6	<1%	<1%	3.7	2.3	3.8	2.4	3.6	2.3	24.2	15.5
Netherlands	2.6	1.4	2.5	1.1	2.8	1.0	2.7	1.0	2.8	1.0	2.8	1.0
Mexico	4.0	1.7	4.0	1.8	4.1	1.5	4.2	1.6	4.3	1.6	4.5	1.6
Luxembourg	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Hong Kong	1%	1%	1%	1%	1%	1%	3.5	1.3	3.6	1.3	3.9	1.4
Panama	3.5	1.5	3.4	1.5	3.4	1.3	3.1	1.2	3.0	1.1	<1%	<1%
Japan	2.1	0.9	2.1	0.9	2.1	0.8	2.2	0.8	2.2	0.8	2.5	0.9
Saudi Arabia	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%

Source: U.S. Department of Agriculture, Foreign Ownership of U.S. Agricultural Land Through December 31, 1986 (Washington, D.C.: U.S. Government Printing Office, April 1987).

APPENDIX F  
ANALYSIS OF IRRS DIRECT INVESTMENTS

TABLE F-1

POST-TRA  
 RENT: CLASS I  
 CAP. GAIN: CLASS II

		Columns					
		1	2	3	4	5	6
		<u>Canada</u>	<u>Saudi</u>	<u>U.S.</u>	<u>Canada</u> <u>-U.S.</u>	<u>Saudi</u> <u>-U.S.</u>	<u>Canada</u> <u>-Saudi</u>
Original Values for Variables		9.50	2.00	4.54	4.96	-2.54	7.50
Changes to Variables:							
Interest Rate:	12%	8.17	-2.49	2.41	5.76	-4.90	10.66
	8%	10.35	5.38	6.71	3.64	-1.33	4.97
GI Growth Rate:	-2%	7.33	-3.87	0.70	6.63	-4.57	11.20
	6%	11.82	8.02	9.88	1.94	-1.86	3.80
OE Growth Rate:	5%	9.38	0.99	4.09	5.29	-3.10	8.39
Farmland Apprec.:	5%	11.80	6.30	8.47	3.33	-2.17	5.50
	10%	15.85	12.08	14.30	1.55	-2.22	3.77
	-5% ERR	ERR	ERR	ERR	--	--	--
D/PP Ratio:	50%	7.40	5.45	5.27	2.13	0.18	1.95
	0%	7.15	8.54	4.99	2.16	3.55	-1.39
Change in Foreign Exchange:							
	-2%	3.28	-0.19	4.54	-1.26	-4.73	3.47
	0%	5.53	-0.06	4.54	0.93	-4.60	5.59
Other TI: \$20,000		9.62	1.97	4.65	4.97	-2.68	7.65
	\$000	9.79	1.97	5.00	4.79	-3.03	7.82
Debt Term: 20 Years		10.13	4.74	5.39	4.74	-0.65	5.33
Holding Period:							
10 Years		8.25	-3.62	1.73	6.52	-5.35	11.87
	5 Years	6.43	ERR	-1.35	7.78	--	--
Replic. of O'Dell (n = 10)		27.78	20.59	25.27	2.51	-4.68	7.19
Prevalent Relationship:							
Direction					Pos.	Neg.	Pos.
Percentage of Times					94%	88%	94%

TABLE F-2  
 POST-TRA  
 RENT: CLASS I  
 CAP. GAIN: EXEMPT

		Columns					
		1	2	3	4	5	6
		Canada	Saudi	U.S.	Canada -U.S.	Saudi -U.S.	Canada- Saudi
Original Values for Variables		9.99	2.53	4.54	5.45	-2.01	3.44
Changes to Variables:							
Interest Rate:	12%	8.73	-2.11	2.41	6.32	-4.52	10.84
	8%	10.84	5.84	6.71	4.13	-0.87	5.00
GI Growth Rate:	-2%	8.12	-4.19	0.70	7.42	-4.89	12.31
	6%	12.22	8.31	9.88	2.34	-1.57	3.91
OE Growth Rate:	5%	9.88	1.54	4.09	5.79	-2.55	8.34
Farmland Apprec.:	5%	12.68	7.51	8.47	4.21	-0.96	5.17
	10%	17.97	13.84	14.30	3.67	-0.46	4.13
	-5%	-4.34	ERR	ERR	--	--	--
D/PP Ratio:	50%	7.91	5.77	5.27	2.64	0.50	3.14
	0%	7.55	8.69	4.99	2.56	3.70	-1.14
Change in Foreign							
Exchange:	-2%	3.51	0.59	4.54	-1.03	-3.95	2.92
	0%	5.88	0.67	4.54	1.34	-3.87	5.21
Other TI: \$20,000		10.10	2.53	4.65	6.00	-2.12	7.57
	\$000	10.25	2.53	5.00	5.25	-2.47	7.72
Debt Term:	20 Years	10.73	4.80	5.39	5.34	-0.59	5.93
Holding Period:							
10 Years		8.88	-3.15	1.73	7.15	-4.88	12.03
	5 Years	6.70	ERR	-1.35	8.054	--	--
Replic. of O'Dell		30.00	24.25	25.27	4.73	-1.01	5.74
Prevalent Relationship:							
Direction Percentage of Times					Pos. 94%	Neg. 88%	Pos. 94%

TABLE F-3  
 POST-TRA  
 RENT: CLASS II  
 CAP. GAIN: CLASS II

	Columns					
	1	2	3	4	5	6
	<u>Canada</u>	<u>Saudi</u>	<u>U.S.</u>	<u>Canada</u> <u>-U.S.</u>	<u>Saudi</u> <u>-U.S.</u>	<u>Canada</u> <u>-Saudi</u>
Original Values for Variables	8.22	8.14	4.54	3.68	3.60	0.08
Changes to Variables:						
Interest Rate: 12%	6.12	6.82	2.41	3.71	4.41	-0.70
8%	10.65	10.04	6.71	3.94	3.33	0.61
GI Growth Rate: -2%	5.90	6.97	0.70	5.20	6.27	-1.07
6%	12.25	13.15	9.88	2.37	3.27	-0.90
OE Growth Rate: 5%	7.88	7.87	4.09	3.79	3.78	0.01
Farmland Apprec.: 5%	12.06	11.94	8.47	3.59	3.47	0.12
10%	17.09	17.78	14.30	2.79	3.48	-0.69
-5%	ERR	ERR	ERR	--	--	--
D/PP Ratio: 50%	8.42	8.43	5.27	3.15	3.16	-0.01
0%	8.66	9.02	4.99	3.67	4.12	-0.36
Change in Foreign Exchange: -2%	4.64	3.35	4.54	0.10	-1.19	1.29
0%	5.77	4.84	4.54	1.23	0.30	0.93
Other TI: \$20,000	8.17	8.23	4.65	3.52	3.58	-0.06
\$000	8.05	8.55	5.00	3.05	3.55	-0.50
Debt Term: 20 Years	9.93	9.78	5.39	4.54	4.39	0.15
Holding Period:						
10 Years	5.40	5.79	1.73	3.67	4.06	-0.39
5 Years	0.55	1.93	-1.35	1.90	3.28	-1.38
Replic. of O'Dell	29.35	28.57	25.27	4.08	3.30	0.78
Prevalent Relationship:						
Direction				Pos.	Pos.	Neg.
Percentage of Times				100%	94%	59%

TABLE F-4  
 POST-TRA  
 RENT: CLASS II  
 CAP. GAIN: EXEMPT

		Columns					
		1	2	3	4	5	6
		<u>Canada</u>	<u>Saudi</u>	<u>U.S.</u>	<u>Canada</u> <u>-U.S.</u>	<u>Saudi</u> <u>-U.S.</u>	<u>Canada</u> <u>-Saudi</u>
Original Values for Variables		8.56	8.45	4.54	4.02	3.91	0.11
Changes to Variables:							
Interest Rate:	12%	6.50	6.96	2.41	4.09	4.55	-0.46
	8%	10.95	10.35	6.71	4.24	3.64	0.65
GI Growth Rate:	-2%	6.29	6.88	0.70	5.59	6.18	-0.59
	6%	12.47	13.34	9.88	2.59	3.46	-0.87
OE Growth Rate:	5%	8.23	8.16	4.09	4.14	4.07	0.07
Farmland Apprec.:	5%	12.24	12.68	8.47	3.77	4.21	-0.44
	10%	17.97	18.82	14.30	3.67	4.52	-0.85
	-5% ERR	ERR	ERR	ERR	--	--	--
D/PP Ratio:	50%	8.68	8.68	5.27	3.41	3.41	--
	0%	8.86	9.15	6.00	2.86	3.15	-0.29
Change in Foreign Exchange:	-2%	5.28	4.05	4.54	0.74	-0.49	1.23
	0%	6.30	5.37	4.54	1.76	0.83	1.03
Other TI: \$20,000		8.27	8.55	4.65	3.62	3.90	-0.28
	\$000	8.03	8.86	5.00	3.03	3.86	-0.83
Debt Term: 20 Years		10.16	9.82	5.39	4.77	4.43	0.34
Holding Period:							
10 Years		6.19	6.09	1.73	4.46	4.36	0.10
	5 Years	0.88	0.88	-1.35	2.23	2.23	--
Replic. of O'Dell (n = 10)		31.37	31.34	25.27	6.10	6.07	0.03
Prevalent Relationship:							
Direction					Pos.	Pos.	Neg.
Percentage of Times					100%	94%	59%

TABLE F-5

PRE-TRA  
 RENT: CLASS I  
 CAP. GAIN: CLASS II

	Columns					
	1	2	3	4	5	6
	<u>Canada</u>	<u>Saudi</u>	<u>U.S.</u>	<u>Canada</u> <u>-U.S.</u>	<u>Saudi</u> <u>-U.S.</u>	<u>Canada</u> <u>-Saudi</u>
Original Values for Variables	9.62	2.19	4.81	4.81	-2.62	7.43
Changes to Variables:						
Interest Rate: 12%	8.59	-2.38	3.17	5.42	-5.55	10.97
8%	10.46	5.52	6.46	4.00	-0.94	4.94
GI Growth Rate: -2%	8.27	-4.03	1.97	6.30	-6.00	9.30
6%	11.89	8.10	8.85	3.04	0.75	3.79
OE Growth Rate: 5%	9.52	1.21	4.47	5.05	-3.26	8.31
Farmland Apprec.: 5%	12.11	6.68	8.93	3.18	-2.25	5.43
10%	16.40	12.64	14.92	1.48	-2.28	3.76
-5%	-6.45	ERR	ERR	--	--	--
D/PP Ratio: 50%	7.60	5.54	4.94	2.66	0.60	2.06
0%	7.45	8.58	4.99	2.46	3.59	-1.13
Change in Foreign Exchange: -2%	2.14	0.09	4.81	-2.67	-4.72	2.05
0%	5.04	0.20	4.81	0.23	-4.61	4.84
Other TI: \$20,000	9.72	2.17	5.10	4.62	-2.93	7.55
\$000	9.86	2.20	5.53	4.33	-3.33	7.66
Debt Term: 20 Years	10.42	4.84	5.22	5.20	-0.38	5.58
Holding Period:						
10 Years	7.23	-3.39	3.14	4.09	6.53	10.62
5 Years	2.18	ERR	-0.67	2.85	--	--
Replic. of O'Dell	27.85	21.75	26.53	1.32	-4.78	6.10

ERR - Negative value too large for program.

Prevalent Relationship:

Direction	Pos.	Neg.	Pos.
Percentage of Times	94%	75%	94%



TABLE F-6

PRE-TRA  
RENT: CLASS I  
CAP. GAIN: EXEMPT

	Columns					
	1	2	3	4	5	6
	<u>Canada</u>	<u>Saudi</u>	<u>U.S.</u>	<u>Canada</u> <u>-U.S.</u>	<u>Saudi</u> <u>-U.S.</u>	<u>Canada</u> <u>-Saudi</u>
Original Values for Variables	9.80	2.53	4.81	4.99	-2.28	7.27
Changes to Variables:						
Interest Rate: 12%	8.77	-2.11	3.17	5.60	-5.28	10.88
8%	10.64	5.84	6.46	4.18	-0.62	4.80
GI Growth Rate: -2%	8.45	-4.19	1.97	6.48	-6.16	12.64
6%	12.04	8.31	8.85	3.19	-0.54	3.73
OE Growth Rate: 5%	9.69	1.54	4.47	5.22	-2.93	8.15
Farmland Apprec.: 5%	12.57	7.51	8.93	3.64	-1.42	5.06
10%	17.22	13.84	14.92	2.30	-1.08	3.38
-5%	-9.27	ERR	ERR	--	--	--
D/PP Ratio: 50%	7.76	5.77	4.94	2.82	0.83	1.99
0%	7.55	8.69	4.99	2.56	3.70	-1.14
Change in Foreign Exchange: -2%	2.77	0.59	4.81	-2.04	-4.22	2.18
0%	5.42	0.66	4.81	0.61	-4.15	4.76
Other TI: \$20,000	9.89	2.53	5.10	4.79	-2.57	7.36
\$000	10.02	2.53	5.53	4.49	-3.00	7.49
Debt Term: 20 Years	10.55	4.80	5.22	5.33	-0.42	5.75
Holding Period:						
10 Years	7.54	-3.15	3.14	4.40	-6.29	10.69
5 Years	2.12	ERR	-0.67	2.79	--	--
Replic. of O'Dell (n = 10)	29.70	24.26	26.53	3.17	-2.27	5.44
Prevalent Relationship:						
Direction				Pos.	Neg.	Pos.
Percentage of Times				94%	88%	95%

TABLE F-7

PRE-TRA  
 RENT: CLASS II  
 CAP. GAIN: CLASS II

	Columns					
	1	2	3	4	5	6
	<u>Canada</u>	<u>Saudi</u>	<u>U.S.</u>	<u>Canada</u> <u>-U.S.</u>	<u>Saudi</u> <u>-U.S.</u>	<u>Canada</u> <u>-Saudi</u>
Original Values for Variables	8.37	8.10	4.81	3.56	3.29	0.27
Changes to Variables:						
Interest Rate: 12%	6.98	7.18	3.17	3.81	4.01	-0.20
8%	9.95	9.33	6.46	3.49	2.87	0.62
GI Growth Rate: -2%	6.91	7.38	1.97	4.94	5.41	-0.47
6%	11.72	11.78	8.85	2.87	2.93	-0.06
OE Growth Rate: 5%	8.19	8.03	4.47	3.72	3.56	0.16
Farmland Apprec.: 5%	12.45	12.22	8.93	3.52	3.29	0.23
10%	18.49	18.30	14.92	3.57	3.38	0.19
-5%	ERR	ERR	ERR	--	--	--
D/PP Ratio: 50%	7.99	7.78	4.94	3.05	2.84	0.21
0%	7.85	7.83	4.99	2.86	2.84	0.02
Change in Foreign Exchange: -2%	3.41	3.05	4.81	-1.40	-1.76	0.36
0%	5.04	4.64	4.81	0.23	-0.17	0.40
Other TI: \$20,000	8.40	8.37	5.10	3.30	3.27	0.03
\$000	8.57	8.71	5.53	3.04	3.18	-0.14
Debt Term: 20 Years	9.93	9.71	5.22	4.71	4.49	0.22
Holding Period:						
10 Years	5.87	5.94	3.14	2.73	2.80	-0.07
5 Years	1.24	1.70	-0.67	1.91	2.37	-0.46
Replic. of O'Dell (n = 10)	29.75	29.57	26.53	3.12	3.04	0.18
Prevalent Relationship:						
Direction				Pos.	Pos.	Pos.
Percentage of Times				94%	88%	65%

TABLE F-8  
 PRE-TRA  
 RENT: CLASS II  
 CAP. GAIN: EXEMPT

	Columns					
	1	2	3	4	5	6
	<u>Canada</u>	<u>Saudi</u>	<u>U.S.</u>	<u>Canada</u> <u>-U.S.</u>	<u>Saudi</u> <u>-U.S.</u>	<u>Canada</u> <u>-Saudi</u>
Original Values for Variables	8.58	8.31	4.81	3.77	3.50	0.27
Changes to Variables:						
Interest Rate: 12%	7.21	7.28	3.17	4.04	4.11	-0.07
8%	10.15	9.57	6.46	3.69	3.11	0.58
GI Growth Rate: -2%	7.13	7.33	1.97	5.16	5.36	-0.20
6%	12.47	13.34	8.85	3.62	4.48	-0.87
OE Growth Rate: 5%	8.23	8.16	4.47	3.76	3.69	0.07
Farmland Apprec.: 5%	12.89	12.72	8.93	3.96	3.79	0.17
10%	19.09	19.00	14.92	4.17	4.08	0.09
-5% ERR	ERR	ERR	ERR	--	--	--
D/PP Ratio: 50%	8.14	7.96	4.94	3.20	3.02	0.18
0%	7.95	7.93	4.99	2.96	2.94	0.02
Change in Foreign Exchange: -2%	3.92	3.53	4.81	-0.89	-1.46	0.39
0%	5.42	5.00	4.81	0.61	0.19	0.42
Other TI: \$20,000	8.61	8.58	5.10	3.51	3.48	0.03
\$000	8.77	8.89	5.53	3.24	3.36	-0.12
Debt Term: 20 Years	10.07	9.69	5.22	4.85	4.47	0.38
Holding Period:						
10 Years	6.22	6.10	3.14	3.08	2.96	0.12
5 Years	1.18	1.20	-0.67	1.85	1.87	-0.02
Replic. of O'Dell (n = 10)	31.38	31.48	26.53	4.85	4.95	-0.10
Prevalent Relationship:						
Direction				Pos.	Pos.	Pos.
Percentage of Times				94%	94%	59%

APPENDIX G

ANALYSIS OF IRRS INDIRECT INVESTMENTS

TABLE G-1  
PRE-FIRPTA, POST-TRA

		Columns					
		1	2	3	4	5	6
		Canada	Saudi	U.S.	Canada -U.S.	Saudi -U.S.	Canada- Saudi
Original Values for Variables		7.86	8.09	4.28	3.58	3.81	-0.23
Changes to Variables:							
Interest Rate:	12%	5.98	6.76	1.94	4.04	4.82	-0.78
	8%	10.47	9.84	6.30	4.17	3.54	0.63
GI Growth Rate:	-2%	5.95	6.92	-0.49	6.44	7.41	-0.97
	6%	13.23	11.95	8.36	4.87	3.59	1.28
OE Growth Rate:	5%	7.41	7.79	3.85	3.56	3.94	-0.38
Farmland Apprec.:	5%	10.93	11.66	7.24	3.69	4.42	-0.73
	10%	16.19	17.35	12.33	3.86	5.02	-1.16
	-5% ERR	ERR	ERR	ERR	--	--	--
D/PP Ratio:	50%	8.35	7.82	4.43	3.92	3.39	0.52
	0%	8.78	7.49	4.23	4.55	3.26	1.29
Change in Foreign Exchange:	-2%	3.91	3.33	4.28	-0.37	-0.95	0.58
	0%	5.07	4.80	4.28	0.79	0.52	0.27
Other TI: \$20,000		7.95	8.34	4.57	3.38	3.77	-0.39
	\$000	8.09	8.39	4.73	3.36	3.66	-0.30
Debt Term:	20 Years	9.96	9.93	5.32	4.64	4.61	0.03
Holding Period:							
10 Years		5.18	5.92	2.28	2.90	3.64	-0.74
	5 Years	1.14	1.47	-1.27	2.41	2.74	-0.33
Dividend Payout:	80%	7.88	8.11	4.30	3.58	3.81	-0.23
	60%	7.90	8.13	4.32	3.58	3.81	-0.23
	0%	7.96	8.19	4.39	3.57	3.80	-0.23
Prevalent Relationship:							
Direction					Pos.	Pos.	Neg.
Percentage of Times					95%	95%	63%

TABLE G-2  
PRE-FIRPTA, PRE-TRA

		Columns					
		1	2	3	4	5	6
		<u>Canada</u>	<u>Saudi</u>	<u>U.S.</u>	<u>Canada</u> <u>-U.S.</u>	<u>Saudi</u> <u>-U.S.</u>	<u>Canada</u> - <u>Saudi</u>
Original Values for Variables		7.87	8.34	4.60	3.27	3.74	-0.47
Changes to Variables:							
Interest Rate:	12%	6.47	7.27	2.99	3.48	4.28	-0.80
	8%	9.34	9.62	6.19	3.15	3.43	-0.28
GI Growth Rate:	-2%	6.24	7.26	1.50	4.74	5.76	-1.02
	6%	10.86	11.23	9.88	0.98	1.35	-0.37
OE Growth Rate:	5%	7.74	8.28	4.35	3.39	3.93	-0.54
Farmland Apprec.:	5%	11.85	12.68	8.47	3.38	4.21	-0.83
	10%	17.81	18.90	14.28	3.53	4.62	-1.09
	-5% ERR	ERR	ERR	ERR	--	--	--
D/PP Ratio:	50%	7.10	7.51	4.03	3.07	3.48	-0.41
	0%	6.41	6.98	3.24	3.17	3.74	-0.57
Change in Foreign Exchange:	-2%	3.65	3.38	4.60	-0.95	-1.22	0.27
	0%	4.92	4.94	4.60	0.32	0.34	-0.02
Other TI: \$20,000		8.31	8.69	5.08	3.23	3.61	-0.38
	\$000	8.47	8.77	5.28	3.19	3.49	-0.30
Debt Term:	20 Years	9.32	9.75	5.23	4.09	4.52	-0.43
Holding Period:							
10 Years		5.36	6.10	2.97	2.39	3.13	-0.74
	5 Years	0.92	1.51	-0.58	1.50	2.09	-0.59
Dividend Payout:	80%	7.874	8.340	4.601	3.273	3.739	-0.466
	60%	7.877	8.341	4.595	3.282	3.746	-0.464
	0%	7.884	8.347	4.604	3.280	3.743	-0.463
Prevalent Relationship:							
Direction					Pos.	Pos.	Neg.
Percentage of Times					95%	95%	95%

TABLE G-3  
POST-FIRPTA, POST-TRA

		Columns					
		1	2	3	4	5	6
		<u>Canada</u>	<u>Saudi</u>	<u>U.S.</u>	<u>Canada</u> <u>-U.S.</u>	<u>Saudi</u> <u>-U.S.</u>	<u>Canada</u> - <u>Saudi</u>
Original Values for Variables		7.62	7.44	4.28	3.34	3.16	0.18
Changes to Variables:							
Interest Rate:	12%	5.71	6.07	1.94	3.77	4.13	-0.36
	8%	10.27	9.27	6.30	3.97	2.97	1.00
GI Growth Rate:	-2%	5.66	6.21	-0.49	6.15	6.70	-0.55
	6%	13.10	11.52	8.36	4.74	3.16	1.58
OE Growth Rate:	5%	7.15	7.12	3.85	3.30	3.27	0.03
Farmland Apprec.:	5%	10.36	10.16	7.24	3.12	2.92	0.20
	10%	15.30	15.11	12.33	2.97	2.78	0.19
	-5% ERR	ERR	ERR	ERR	--	--	--
D/PP Ratio:	50%	8.20	7.38	4.43	3.77	2.95	0.82
	0%	8.69	7.22	4.23	4.46	2.99	1.47
Change in Foreign Exchange:	-2%	4.06	2.67	4.28	-0.22	-1.61	1.39
	0%	5.07	4.15	4.28	0.79	-0.13	0.92
Other TI: \$20,000		7.71	7.69	4.57	3.14	3.12	0.02
	\$000	7.86	7.77	4.73	3.13	3.04	0.09
Debt Term:	20 Years	9.79	9.48	5.32	4.47	4.16	0.31
Holding Period:	10 Years	5.04	5.13	2.76	2.28	2.37	-0.09
	5 Years	1.15	1.54	-1.27	2.42	2.81	-0.39
Dividend Payout:	80%	7.64	7.46	4.30	3.34	3.16	0.18
	60%	7.66	7.48	4.32	3.34	3.16	0.18
	0%	7.72	7.54	4.39	3.33	3.15	0.18
Prevalent Relationship:							
Direction					Pos.	Pos.	Pos.
Percentage of Times					95%	90%	79%

TABLE G-4  
POST-FIRPTA, PRE-TRA

		Columns					
		1	2	3	4	5	6
		<u>Canada</u>	<u>Saudi</u>	<u>U.S.</u>	<u>Canada</u> <u>-U.S.</u>	<u>Saudi</u> <u>-U.S.</u>	<u>Canada</u> <u>-Saudi</u>
Original Values for Variables		7.42	7.10	4.60	2.82	2.50	0.32
Changes to Variables:							
Interest Rate:	12%	5.96	5.97	2.99	2.97	2.98	-0.01
	8%	8.94	8.49	6.19	2.75	2.30	0.45
GI Growth Rate:	-2%	5.72	5.97	1.50	4.22	4.47	-0.25
	6%	10.54	10.37	7.33	3.21	3.04	0.17
OE Growth Rate:	5%	7.27	7.03	4.35	2.92	2.68	0.24
Farmland Apprec.:	5%	10.86	9.95	8.47	2.39	1.48	0.91
	10%	16.40	14.97	14.28	2.12	0.69	1.43
	-5% ERR	ERR	ERR	ERR	--	--	--
D/PP Ratio:	50%	6.77	6.64	4.03	2.74	2.61	0.13
	0%	6.21	6.46	3.24	2.97	3.22	-0.25
Change in Foreign Exchange:	-2%	3.93	2.10	4.60	-0.67	-2.50	1.83
	0%	4.92	3.68	4.60	0.32	-0.92	1.24
Other TI: \$20,000		7.91	7.59	5.08	2.83	2.51	0.32
	\$000	8.10	7.56	5.28	2.82	2.28	0.54
Debt Term:	20 Years	9.02	8.94	5.23	3.79	3.71	0.08
Holding Period:							
10 Years		5.13	4.77	2.97	2.16	1.80	0.36
	5 Years	0.92	1.60	-0.58	1.50	2.58	-0.68
Dividend Payout:	80%	7.419	7.105	4.601	2.818	2.504	0.314
	60%	7.422	7.107	4.595	2.827	2.512	0.315
	0%	7.431	7.113	4.604	2.827	2.509	0.318
Prevalent Relationship:							
Direction					Pos.	Pos.	Pos.
Percentage of Times					95%	90%	79%



TABLE G-5

PRE-FIRPTA, PRE-TRA (CAP. GAIN TAX = 0 FOR CORP.)

		Columns					
		1	2	3	4	5	6
		<u>Canada</u>	<u>Saudi</u>	<u>U.S.</u>	<u>Canada</u> <u>-U.S.</u>	<u>Saudi</u> <u>-U.S.</u>	<u>Canada</u> <u>-Saudi</u>
Original Values for Variables		8.45	8.45	4.82	3.63	3.63	--
Changes to Variables:							
Interest Rate:	12%	7.27	7.27	2.99	4.28	4.28	--
	8%	9.74	9.75	6.43	3.31	3.32	-0.01
GI Growth Rate:	-2%	7.22	7.22	1.39	5.83	5.83	--
	6%	11.16	11.33	7.52	3.64	3.81	-0.17
OE Growth Rate:	5%	8.34	8.34	4.49	3.85	3.85	--
Farmland Apprec.:	5%	12.95	12.95	9.01	3.94	3.94	--
	10%	19.27	19.27	15.03	4.24	4.24	--
	-5% ERR	ERR	ERR	ERR	--	--	--
D/PP Ratio:	50%	7.57	7.62	4.23	3.34	3.39	-0.05
	0%	6.87	7.05	3.36	3.51	3.69	-0.18
Change in Foreign Exchange:							
	-2%	3.64	3.65	4.82	-1.18	-1.17	-0.01
	0%	5.15	5.15	4.82	0.33	0.33	--
Other TI:	\$20,000	8.82	8.80	5.30	3.52	3.50	0.02
	\$000	8.92	8.84	5.40	3.52	3.44	0.08
Debt Term:	20 Years	9.75	9.75	5.22	4.53	4.53	--
Holding Period:							
10 Years		6.20	6.20	3.10	3.10	3.10	--
	5 Years	1.16	1.16	-0.96	2.12	2.12	--
Dividend Payout:	80%	8.45	8.46	4.82	3.63	3.64	-0.01
	60%	8.46	8.46	4.81	3.65	3.65	--
	0%	8.46	8.46	4.82	3.64	3.64	--
Prevalent Relationship:							
Direction					Pos.	Pos.	0
Percentage of Times					95%	95%	58%

TABLE G-6

POST-FIRPTA, PRE-TRA (CAP. GAIN TAX = 0 FOR CORP.)

		Columns					
		1	2	3	4	5	6
		<u>Canada</u>	<u>Saudi</u>	<u>U.S.</u>	<u>Canada</u> <u>-U.S.</u>	<u>Saudi</u> <u>-U.S.</u>	<u>Canada</u> - <u>Saudi</u>
Original Values for Variables		7.96	7.25	4.82	3.14	2.43	0.71
Changes to Variables:							
Interest Rate:	12%	6.74	5.98	2.99	3.75	2.99	0.78
	8%	9.28	8.65	6.43	2.85	2.22	0.63
GI Growth Rate:	-2%	6.68	5.92	1.39	5.29	4.53	0.76
	6%	10.80	10.49	7.52	3.28	2.97	0.31
OE Growth Rate:	5%	7.84	7.11	4.49	3.35	2.62	0.73
Farmland Apprec.:	5%	11.95	10.37	9.01	2.94	1.36	1.58
	10%	17.93	15.64	15.03	2.90	0.61	2.29
	-5% ERR	ERR	ERR	ERR	--	--	--
D/PP Ratio:	50%	7.21	6.77	4.23	2.98	2.54	0.44
	0%	6.64	6.54	3.36	3.28	3.18	0.10
Change in Foreign Exchange:	-2%	3.97	2.44	4.82	-0.85	-2.38	1.53
	0%	5.15	3.93	4.82	0.33	-0.89	1.22
Other TI: \$20,000		8.37	7.73	5.30	3.07	2.43	0.64
	\$000	8.51	7.83	5.40	3.11	2.43	0.68
Debt Term:	20 Years	9.40	8.93	5.22	4.18	3.71	0.47
Holding Period:							
10 Years		5.94	4.89	3.10	2.84	1.79	1.05
	5 Years	1.17	1.25	-0.96	2.13	2.21	-0.08
Dividend Payout:	80%	7.96	7.25	4.82	3.14	2.43	0.71
	60%	7.96	7.25	4.81	3.15	2.44	0.71
	0%	7.96	7.26	4.82	3.14	2.44	0.70
Prevalent Relationship:							
Direction					Pos.	Pos.	Pos.
Percentage of Times					95%	89%	95%

# APPENDIX H

## DIRECT INVESTMENTS COMPARISON OF IRR DIFFERENCES CURRENT STUDY VERSUS O'DELL'S STUDY<sup>a</sup>

<u>Income Classification Comparisons</u>				<u>Post-TRA IRR Differences<sup>b</sup></u>			
<u>Post-FIRPTA</u>		<u>Pre-FIRPTA</u>		<u>Post-FIRPTA</u>		<u>Pre-FIRPTA</u>	
<u>Rent</u>	<u>CG</u>	<u>Rent</u>	<u>CG</u>	<u>Current</u>	<u>O'Dell's</u>	<u>Current</u>	<u>O'Dell's</u>
1. Class I	Class II	Class I	Exempt:	Study	Study	Study	Study
	Canada-U.S.			4.96	2.51	5.45	4.73
	Saudi Arabia-U.S.			-2.57	-4.00	-2.01	-1.01
2. Class II	Class II	Class II	Exempt:				
	Canada-U.S.			3.56	3.68	4.02	6.10
	Saudi Arabia-U.S.			3.29	3.60	3.91	6.07

<sup>a</sup>Ph.D. dissertation, University of Texas at Austin, 1980.

<sup>b</sup>Values used for Investment Environmental Variables:

	<u>O'Dell's Study</u>	<u>Current Study</u>
Interest Rate on Debt	10.00%	10%
Gross Income Growth Rate	9.50%	2%
Operating Expense Growth Rate	9.50%	2%
Farmland Appreciation Rate	13.40%	2%
Debt/Purchase Price Ratio	80.00%	75%
Annual Change in Foreign Exchange Rate	2.00%	2%
Purchase Price	\$628,000	\$628,000
Initial Gross Income	48,000	48,000
Initial Operating Expense	5,500	5,500
Other Taxable Income	20,000	60,000
Debt Term in Years	40	40
Holding Period in Years	10	10

## BIOGRAPHICAL SKETCH

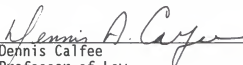
Viceola Deloris Blackshear Sykes was born in Leon County, Florida, on February 5, 1941, the daughter of Lester and Ruth (Williams) Blackshear. She attended the public schools of Leon County, Florida. After graduation from Lincoln High School ("Old Lincoln") of Tallahassee, Florida, she enrolled at Florida Agricultural and Mechanical University, Tallahassee, in September, 1958. She received a Bachelor of Science degree in Accounting from Florida A & M University in 1963 and a Master of Business Administration degree from Atlanta University, Atlanta, Georgia, August, 1964. Ms. Sykes passed the Certified Public Accountants examination in 1981. She taught at several colleges and universities before entering the doctoral program at the University of Florida in the Fall of 1980. She is currently an Assistant Professor of Accounting at the University of North Florida at Jacksonville, Florida. She will receive a Doctor of Philosophy in business administration from the University of Florida on May 6, 1989.

Ms. Sykes is a divorced mother of two sons, Derrick who is 22 years of age, and David who is 12 years of age.


I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a thesis for the degree of Doctor of Philosophy.

  
John L. Kramer, Chairman  
Professor of Accounting


I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a thesis for the degree of Doctor of Philosophy.

  
Dennis Calfee  
Professor of Law

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a thesis for the degree of Doctor of Philosophy.

  
Sandy S. Kramer  
Associate Professor of Accounting

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a thesis for the degree of Doctor of Philosophy.

  
Halbert C. Smith  
Professor of Real Estate.

This thesis was submitted to the Graduate Faculty of the School of Accounting in the College of Business Administration and to the Graduate School and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

May, 1989

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Dean, Graduate School